Courses of Study for the High Schools of N.C.

EDUCATIONAL PUBLICATION No. 147 DIV. OF SCHOOL INSPECTION No. 39

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Courses of Study

COURSES OF STUDY

FOR THE

HIGH SCHOOLS

OF

NORTH CAROLINA

NOTE—*This bulletin is for the convenience and guidance of the teachers, principals and superintendents of the State. It is properly regarded as the property of the office of the superintendent (county or city), and should be returned to that office at the close of the school year.*

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PUBLISHED BY THE
STATE SUPERINTENDENT OF PUBLIC INSTRUCTION
RALFIGH, N. C.

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INTRODUCTION

This is a revision and in part a reprint of a former publication containing the courses of study for the high schools of North Carolina. The supply of the former publication has been exhausted for nearly a year. Since it was necessary to reprint this course of study, special effort has been made to bring it up-to-date and to make it as helpful as possible.

In a recent bulletin (No. 134, High School Manual) we undertook to set up in outline our conception of the proper organization of the small high school. In that outline definite schedules for recitations are set forth together with the distribution of the work among the teachers. The subjects to be taught are merely listed in order.

In the present publication, each subject is taken up separately and treated rather fully in the light of its relations to all the other subjects and as a justification of its place in the curriculum. The objectives inherent in each subject are brought out in some detail. Outlines of method are set forth and sources of material are given. A select bibliography accompanies the course in each subject.

This publication is not intended to serve as a source book but as a guide to the young teacher who desires to increase her efficiency through a greater familiarity with the large body of information that relates to her teaching field. It merely undertakes to conserve her time and energy by directing her to the sources.

It is rich in suggestions, but it carefully avoids any appearance of prescribing either what work shall be done or the manner in which the work shall be done.

The expansion of the public high schools in the State makes necessary on the part of superintendents and principals a careful study of high school organization and administration, in order that the public funds may be expended in the most economical way, and in order that the greatest possible returns in education may be secured from this expenditure. It is hoped that this bulletin will aid the school officials in providing proper high school facilities.

A. T. Allen

State Superintendent Public Instruction.

1-7-30—10M.

PREFACE

This Course of Study represents the work of a great many of the best high school principals and teachers and other workers in Education in the schools of the State. It is the most comprehensive bulletin which the Department has ever attempted on courses of study for the high schools of North Carolina. It is hoped and expected that this bulletin will be of practical assistance to every high school teacher who uses it. It will be observed that the arrangement of material is different from that in former bulletins.

Curricula for the high school are not suggested. The bulletin *High School Manual*, Educational Publication No. 134, Division of School Inspection No. 36, indicates the curricula offered in three-, four-, five- and six-teacher schools. In connection with each course there is a suggested daily schedule. High school principals who are not familiar with this bulletin should secure a copy of it from the superintendent, and each principal should follow it in the selection of a particular curriculum for his school and also for the organization.

In the preparation of this bulletin contributions have been received from many persons and many sources. Acknowledgment is hereby made of the services rendered by the various committees appointed to work on the courses in the various high school subjects.

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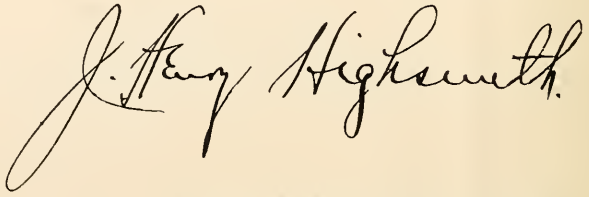

Director Division of School Inspection

ENGLISH

"English," as the most popular study in the high school curriculum is called, covers so wide a field that, taken in all its contacts and intentions, it may be regarded as an interpretation of our civilization. In the fine enthusiasm aroused by so large a conception of the subject lurks a danger: the temptation to scatter our efforts in too extensive and undirected endeavor. The uncertain aims and the diverse conditions of teaching English at the present time call for the making and carrying out of a fairly definite program of aims and methods. A plan drawn to meet this demand should not be so unbending that it will mechanically bind the experienced and well-equipped teacher; but it should be specific enough to give definite guidance to the less well-prepared teacher.

I. AIMS OF TEACHING ENGLISH IN THE HIGH SCHOOL

Though the aims of teaching the two large aspects of the subject are in part the same, it is convenient to separate literature and composition in the statement of the aims of teaching English in the high school.

A. Literature

Common honesty demands that we avoid platitudinous expressions of vague aims and exalted objects which we know are unattainable. With reasonable expectation of reaching our aims, we may express these important intentions in teaching English literature; providing a means of exercising the pupil's healthy emotions; improving the pupil's taste in reading; familiarizing the pupil with a considerable body of the best literature as an expression of ideals and traditions, and as an interpretation of problems of thinking and conduct that meet the individual in his daily life; and arousing in the pupil an admiration for good language and effective expression of ideas.

B. Composition

In the two forms of expression, written and oral composition, we should aim at developing in the pupil an ability to think clearly and honestly, and to express his thoughts correctly and effectively. Training in artistic forms of expression should be reserved for the additional instruction of the specially gifted.

Both reading and writing should receive as much attention as a preparation for the higher enjoyment of life as a training for vocations or professions. Literature and composition should be stressed as a means of enjoying leisure *earned through work.* The average high school pupil is, perhaps, more deficient in this respect than he is in his knowledge of how to "make a living." Such pleasure is, in no sense, the same as idleness. Like all other educational processes—and every other worth while thing in life—it requires the effort of understanding. *The whole English course should demand from the pupil sufficient honest effort and thoughtful preparation as to win and retain his respect for the subject and its teacher.*

II. METHODS OF TEACHING ENGLISH IN THE HIGH SCHOOL

Dividing the periods allotted to English into one or more for composition and one or more for literature each week is condemned. A solid month's instruction or a full term's teaching should be given to literature, and a large group of time to continuous work in composition. Two-fifths of the school year should be devoted to literature; two-fifths to written composition; one-fifth to oral composition.

A. Literature

The history of literature should find but small place in the high school course of study. Histories of English and American literature, if used at all, should be used very sparingly, and largely as collateral reading. The biographical plan of teaching literature is, also, unsatisfactory, for it tends to substitute the less essential facts of the author's life for the more important meaning of his writings.

The primary intention of the teacher of literature should be to bring about an understanding on the part of the pupil of the piece of writing the pupil reads. The content of any piece of literature, both its intellectual and emotional content, must be grasped by the reader. A general impression of what a poem, a play, or a story has to say is of little lasting value. The goal of understanding is the author's meaning as a whole and in detail. Time and study must be given to learning the exact meaning and the suggestion of his words; to getting an understanding of the background of the composition; to outlining the plan or the arrangement of the story or essay. But such details should be subordinated to the main purpose of making clear the author's large intention and the composition's meaning as a whole, especially in its relation to the important interests of life. No piece of literature should be looked upon as merely a group of problems in the meaning of words, as merely an historical document, or merely as material for exercises in outlining.

Literature should be so taught as to show its relations to important social, mental, and emotional interests of human life. Of the many important interests of human life toward which the teaching of literature should be directed, the following themes will serve to group the books generally read in the high school course in English: *Romance and Adventure; Great Men; Great Ideals; Man and Nature; American Life and Ideals; Fancy and Imagination; Humor.* Below (pp. 7-11) are given some suggestions for directing the reading according to these interests.

Under this scheme abundant opportunity is given for correlating the work in English with instruction in other subjects. Advantage of such contacts should be taken by every teacher of English. Contact with science comes easily through the Man and Nature group; history and civics are concerned with American Life and Ideals, and history, again, has a task closely related to the Great Men group.

Opportunity is also furnished for relating much of the reading to community life and the individual experiences of the pupils, especially in the way of socializing the individual. Local and temporal interests should be established. The use of current literature, as it appears in books and reputable magazines, is urgently recommended.

ROMANCE AND ADVENTURE

The love of action and the spirit of adventure makes romance an appealing source from which to draw selections for reading and study in the early years of the high school. Emphasis should be laid upon the story for its own sake. The teacher should, of course, know the source of the narrative and be thoroughly familiar with the story. The teacher must sometimes lead youthful curiosity by anecdotes about the author or the book, or by discussions of the background of the narrative. These ideals should be subordinated to the aim of raising the pupil's sense of expectancy by directing their reading with three questions uppermost in in their minds: Who are the actors? What do they do? Where are they acting? An introduction to a book may be made through silent reading in the classroom, the teacher being nearby to explain difficulties. Encourage rapid reading for a grasp of the story as a whole, and then return to a more careful second reading. Do not allow the reading to drag. For instance, "Ivanhoe" is likely to drag if as many as thirty recitations are given over to it. Twelve assignments should suffice.

The ballad—romance in song—appeals to youthful interests through its presentation of primitive emotions and its communal expression. Pupils should be introduced to ballads in the making in order to show them the purpose and the method of composition of the unknown minstrels. Turn the class into a small community, met to entertain a wandering story-teller. Select the best reader or singer to chant or recite the verses which carry the story and let the other pupils carry the refrain. Follow this by calling for original tales or local stories or continuations of the ballads recited.

GREAT MEN; GREAT IDEALS

An interest in action naturally leads to an interest in those who perform them. The center of interest may be led from what men do to what men are. The epic is a good point of departure from the ballad or the tale of adventure (Ivanhoe or Kidnapped, for instance). The Odyssey and the Iliad cluster around a few semi-mortals who challenge the imagination by their devotion to race ideals. These great books of Greek civilization may be easily simplified and made real by organizing the class into groups to furnish information about the actors, both that which is revealed in the texts and that which may be gathered from other sources, and about their costumes, occupations, ceremonies, amusements, laws, and ideals. Visualize the action by calling a meeting of the heroes to discuss questions of conduct on some of the occasions that arise in the story, and to consider what these characters would do in the face of problems of conduct and belief today.

Consideration of the lives of great men in literature should be guided by such questions as: How did his ideals affect his life? How far did he realize his ideals? What services did he render humanity? What have we to learn from his attitude toward life?

The great Biblical narratives, told in a simple, straightforward diction, reveal inspiring devotion, powerful in life and in death. The Idylls of the King, symbolical of the triumph of the spiritual over the sensual, is a fine example of the success and the failure of great men. The deeds of King Arthur and his knights speak through the beauty of Tennyson's

lines. As a basis for the appreciation of the times of Arthur, the reading of the Idylls should follow or go along with the study of chivalry in history classes. Good results in character judgment are likely to follow if each student be required to select a single character to follow throughout the narrative for all the evidence on which to base his decision.

The study of character failures belongs to the later years of the high school. Such a study is often depressing to younger students, unless keen analysis makes the conclusions just. Some of the greatest characters in literature are, however, as judged from ordinary points of view, entire falures: but they are persons who have striven mightily, but who, through some small defect of a powerful nature, have gone down into defeat. Great emphasis should be given to making a distinction between this sort of character and the utterly weak or thoroughly bad person, and to bring out clearly the reality of the struggle and the pity of the failure. Do not try to judge unless you have thoroughly studied the situation and the character traits of the main persons in the narrative.

American Life and Ideals

Interest in race consciousness started in the earlier grades through the tales of adventure should be directed to a more mature consideration of the peculiar conditions of our own national life and beliefs. The adventure of American pioneer civilization, the wonder of our youth and strength, and the remarkable unity in the great variety of our life, are entrancing themes of interest told in some of our literature. Life and conditions of our early settlement—contact with the Indians in Coopers' narratives, which show primitive man in contact with a more advanced civilization; the vastness of our forests and plains, the intrepid romance of discovery of the westward pioneers in Parkman's *Oregon Trail;* early days in California in Bret Harte's short stories; the Puritan civilization of New England in Hawthorne's narratives; the golden age of Southern life in Thomas Nelson Page—this panorama of our civilization is pictured in our writings. A good knowledge of American history, of our political, geographical, and social history, is required of the teacher; but American literature should not be taught merely as history; rather the appealing imaginative aspects of it should be the aim of its study. Not all of the writings suggested can, perhaps, be read, but some choice should be made of writings that will represent all the important sides of our life. Thus we may understand ourselves better than we always do at the present time, and may move from the provincialism that makes so many of us think that "the other fellow" is peculiar or an object of suspicion. A truly national feeling may be arrived at by a close study of several local conditions.

Not only should we learn through our literature how we came to be and how we are arranged on this continent, but we shall have a knowledge of what the Nation has thought about, of what ideals have stirred the national life, and of what enthusiasms have moved our most sensitive and most expressive citizens. Whence have come our inheritance of ideals and institutions? Burke's Speech on Conciliation has its prime reason for inclusion in the reading list in its part-answer to this question. The political characteristics attributed to the Colonists by Burke should be analyzed in the light of ideals of the United States in its various periods,

particularly of those that guided us in the World War. Expression of other elements of our inheritance should be found in the writings of later non-British immigrants. Our political principles—national and international—have been defined at different periods in Washington's, Webster's, Lincoln's, and Wilson's writings; and summaries of Democracy and Americanism are expressed in those of Grady, Roosevelt and others. The ideas, of course, are the main interest in such compositions; but they are themes worthy of the highest forms of expressions, and they have been worthily treated.

MAN AND NATURE

Man is considered in his social and national relations under the preceding topics. Man does not, however, live only with man, for his civilization has not released him from his relation to animals, his helpers and companions of the out-of-doors. The primitive relationships of man and animals are represented through the stirring stories in the Jungle Books. This humanizing of animals appeals to the early high school years. In the reading of the Kipling stories there should, also, be brought out the conflict between the free life of the forest and the restricted town-life; the life of the out-of-doors is, however, not without its own law; natural law exists in the jungle, too. The conflict between the brutal elements in wild life and the repressions acquired through civilization may be shown through reading Jack London's "Call of the Wild," in which the triumph of the primitive in the dog-hero is represented. A thrilling account of man's fight with the elemental in nature is given in David Crockett's "Autobiography."

FANCY AND IMAGINATION

In the literature of fancy and imagination is represented man's relation to the unknown. The material of this sort of literature is not fact or opinion, but fancy. The element of wonder in the human mind may be guided from its cruder forms in human adventure to the more picturesque and fanciful forms of it in the making of an imaginary world. This is the land of "A Midsummer Night's Dream" and the country of the Forest of Arden in "As You Like It." It matters little where the imaginary scene is laid, but this newly created world of a writer must be made by him real and vivid and full of significance. In "The Ancient Mariner" the author's purpose, as it must be shown the pupils, was to make his supernatural world as real as the actual world. The pictures of this non-actual world are vividly painted, and the probability of their existence, it must be pointed out again, is made more appealing by the simple diction and the exquisite rhythm. It is in a study of literature of the imagination that the technique of poetry should be stressed. The names of the various schemes of versification used in English poetry are of no great importance, but the sound appeal of poetry, like the influence of music, is to be gained by repetition and practice. Poetry of this sort is composed to appeal through the ear rather than through the eye. The teacher should read simply and effectively a good deal of sound poetry to the class. For an excellent effect in transferring the listener from one scene to another and then back again, try Alfred Noyes' "The Barrel Organ," and for arousing a whimsical effect use the same author's "Forty Singing Seamen."

It is here, too, that the matter of diction should receive attention. In poetry of a highly imaginative order the use of words to produce the illusion is carried far; in addition to their logical meanings (which is the primary concern we have with them in factual writing), there is the figurative, suggestive use of words, by which they are made to suggest much more than they actually say. This fine flavor of words, this response to the tunes that are possible in their arrangement, are the deepest elements in the genuine appreciation of literature. This, quite naturally, is the most difficult task of teaching literature. Appreciation defies analysis. It will always leave some cold. But it can be greatly encouraged by proper guidance on the part of one who himself has feeling for the higher reaches of human expression.

Lyric poetry is the chief carrier of fancy and imagination. It is (usually) unconcerned with the objective elements of life, except as they are brought in to reflect a personal expression of the way they strike a sensitive personality. This subjective element—the emotions of hope, fear, disappointment, joy—is given such vivid expression (in "The Skylark," for instance) that the reader can momentarily make the mood his own and share the poet's more exalted expression of our own vague impulses. This is another, and one of the most important means of teaching literature.

HUMOR

Expression of the healthy emotion of humor is widely distributed in writing, and should be taken account of in the teaching of literature. The pure enjoyment of the emotion should be stressed. A sense of humor is almost universally distributed, although it frequently becomes dried up through non-use or through an over-developed egoism. Such a valuable quality of living should be ministered to in school instruction, for in its developed form an appreciation of humor is frequently a saving grace, and it not infrequently serves as a safety-valve for the explosion of over-wrought feelings aroused under difficult or distressing circumstances.

Instruction should, then, aim at training the natural sense of humor away from a satisfaction with the crude humor of the "slap-stick" farce, from the primitive response of laughing *at* some one (the "other fellow") when he falls down, and from pleasure in the cruelty of a practical joke. Continued indulgence in this kind of humor blunts the appreciation of the finer shades of the emotion. Instruction should begin with the simpler forms of humor, as the "mischief" of Mark Twain's boys, which is always obvious and sometimes rough, through Uncle Remus' delightful but not subtle tales, through the boisterous anecdotes of O. Henry, through the quaint and whimsical absurdities of Mrs. Wiggs, on to the refined thrusts of The Rivals. Specimens of these and other grades of humor should be exhibited to the pupils, with the characteristics of each class pointed out and the bases of the humorous appeal accounted for. Here it should be noted, for example, that a ridiculous representation of a behavior natural to a particular age is usually not appealing in its humor to a reader of that age, as Tarkington's "Seventeen," for instance, with all its delight for grown-ups, is generally not considered funny by pupils of seventeen, to whom being seventeen is too serious a business to be laughed at.

The elements that make situations facetious should be analyzed in detail. Such situations are usually brought about through a misfit between what actually appears and what has been expected; something—a person, his dress, his actions, his words—is out of keeping with the normal and the expected and hence appears absurd, in various degrees and forms of absurdity. When the difference is made to appear between boast and action, between practice and performance, there frequently is thereby suggested some useful criticism of accepted social practices or of the weakness of human nature. This is, in its highest forms, deftly hidden in the obvious humor. The ideas thus suggested may be more effectively expressed than if they were more bluntly stated. This use is the highest function of comedy.

B. Composition

The proficiency in the use of language to which high school pupils should be brought is definitely set forth in a statement of the Minimum Essentials in English Composition, adopted by the North Carolina Council of English Teachers at Greensboro, on March 18, 1922. It will be impossible to arrive at the goal set by this standard without affording pupils constant practice in writing and supervised talking. The nature of a composition exercise is not of so great importance as is its frequency. Habituation to the formal processes of expression is necessary for confidence in the use of language. Little will be availed if the teacher requires only a slight effort at writing every two or three weeks. Little will be availed if the written work of the pupil is not criticised promptly and given to the writer for a prompt correction of his errors. In the case of teachers who must handle the English instruction of a large number of pupils this task is frequently a heavy burden. But what is worth doing at all is worth doing well.

In no other subject does individual instruction count for more than it does in composition. Frequent out-of-class conferences should be held with pupils in regard to their work in composition.

As far as possible, an actual purpose should be found, or an object assumed, for the pupils writing a composition. Themes should not be merely things that have to be written. Interest in the subject-matter and a desire for expression must be aroused. Much of the writing should take the form of the various channels of expression the pupils will be called upon to use in their life experiences: letters (business and personal), reports, announcements, resolutions, advertisements, and the like. Opportunity should, of course, be given for imaginative expression through writing sketches, short stories, arguments, and—if the abilities and the tastes of the class warrant such assignments—poems and plays. For the average student an expository subject will serve best.

In oral composition the teacher should strive so to train the pupils that they will be able to read unhesitatingly a page of prose of no unusual difficulty, to summarize its thought in their own words, to talk unhaltingly at least for five minutes from an outline, with a distinct articulation and in a pleasing tone of voice.

Needless to say, the example of the teacher will count for much in teaching composition. The teacher should write and speak correct and effective English.

III. ORAL COMPOSITION

A. Objectives

1. To improve speech habits:
   a. In pronunciation.
   b. In enunciation.
   c. In grammar.
   d. In diction.
2. To teach the courtesies of social conversation, telephoning, and business interviews.
3. To develop ability:
   a. To answer questions definitely, clearly, and in complete sentences.
   b. To collect and organize material for a speech.
   c. To speak *to* and not *at* an audience.
   d. To present a talk with ease and confidence.
   e. To listen attentively and courteously to a speaker, and to judge a speech that is within the student's comprehension.
   f. To read aloud clearly, accurately, and with some appreciation of the author's thought and feeling.
   g. To preside over a meeting with ease and dignity.
   h. To participate in informal discussion with proper courtesy and in complete sentences.
4. To cultivate a spirit of fairness and of coöperative effort in the conduct of class criticisms of oral themes.

B. Methods

For improvement of speech habits the best method is drill. Drills in enunciation, pronunciation, grammar, and diction must be adapted both in content and in distribution of time to the needs of a particular community. A few minutes' daily practice, however, in specific speech drills designed to cure the most obvious defects will not be amiss for any class of first year students. Any drills in pronunciation and enunciation may well be carried through all four years of the course. Such drills are provided in most of the newer texts in oral English. Students may be provided with mimeographed copies of these for their notebooks. Changes in these drills may be made to suit particular community needs or to meet the changing needs of any particular class.

For teaching the courtesies of social conversation, telephoning, and business interviews group assignments of various kinds are suitable. These may take the form of dramatizations of social visits and of business interviews; of demonstrations of how those things are correctly and incorrectly done; of informal discussions of good conversationalists, typical conversational bores, rudeness over the telephone, telephone courtesies, and the like, each member of certain groups being assigned definite responsibility in the discussion.

Pupils may be taught to answer questions definitely by making every question-and-answer recitation a lesson in oral English. The teacher may secure definite answers to questions by accepting no other kind.

Practice is the only method of learning how to collect and organize material for a talk. Even first-year students should be taught to avoid taking notes on book material in the exact words of the writer or to

give credit for material quoted verbatim. The same methods of careful provision and assignment apply here as in written composition. Some types of assignment for the development of the sort of ability are these: Reports on assigned topics in newspapers and magazines, debates, demonstrations, descriptions, stories, reports on supplementary reading, speeches for occasions, reports on personal observations and investigations, character sketches, and biographies. A good way to secure preparation in oral English is to require students to hand in an outline for each original talk. A convenient form in which to require the outline is to have it written on a 3x5 library card. Incidentally, the back of the card may be used for the teacher's criticisms. Returned card outlines afford the student an easy method of keeping a record of speech errors and thus of noting improvement from time to time.

It is usually the memorized speech that is spoken *at* instead of *to* the audience. For this reason the instructor in oral English should discourage rote work. Instead of *writing* a speech the student should be taught to *think through* his outline topic by topic until he has clearly in mind what he wants to say. The next step is to practice the whole speech aloud several times, not being discouraged if he does not use the same words every time. Practice becomes more effective if the student delivers his speech to an imaginary audience.

Ease and confidence in speaking come from regular and purposeful practice of the sort described in the preceding paragraph. Careful motivation is a reliable means for securing practice. Mr. C. H. Ward gives some interesting suggestions on how to motivate oral composition: "Use yourself as a terrible example of an educated person who never had the advantage of oral composition when he went to school. Tell them how some English teachers cannot trust themselves to speak oral compositions to a friendly convention of colleagues but have to read a paper, and how this paper trembles. . . . Let the class understand that oral composition is the most direct approach a school can make to the needs of real life." Business and professional men and women of the community will be glad to supplement this material by experiences of their own given in chapel talks or presented in the form of letters to special classes written at the request of the instructor. Besides practice in oral composition of the types already mentioned, delivery of memory selections, oral interpretations of literary selections, and dramatization of original or selected scenes help the students to acquire ease of manner.

The value of listening may be brought to the attention of the class in ways similar to those described above; that is, by giving examples of how it pays to learn to listen well. Pupils will supplement from their own experiences the illustrations given by the teacher. "When and How it Pays to Listen" or "The Cultivation of Exact Listening" may be made the topic of an individual assignment in oral composition, the informal discussion of which may bring out many advantages of becoming a good listener. To test the listening ability of a class the teacher may assign talks, the main outlines of which their classmates will be asked to reproduce.

The example of the instructor is the best way to teach pupils to listen courteously. During an oral theme exercise the teacher should sit in the back of the room among the students and show to the speaker

all the consideration that he wishes the class to show. To the student on his feet before the audience such an attitude on the part of the instructor will make a profounder impression than a forty-minute lecture on the subject. Sometimes at the close of the class criticism of oral themes, it may be well for the teacher to suggest that the chairman call on the speakers for criticisms of the audience.

Setting up of standards is necessary before judgment can be of value. It is well to have the students set up standards for themselves under the guidance of the teacher. These standards may take the form of questions which the student should ask himself in judging a speech. The following set of questions may serve as an example:

1. Did the speaker establish intimate contact with the audience?
2. Was his position good, his posture erect and composed?
3. Was his subject matter interesting and definitely planned? Did his composition have a goal?
4. Could he be heard easily?
5. Was his voice clear and pleasant?
6. Did his sentences have any variety of structure?
7. Were his words well chosen?
8. Was his English correct?

A selection cannot be read properly until it is understood. To secure adequate preparation of an assignment in oral interpretation of a selection have pupils hand in analysis of assigned selections. Such an analysis should give the theme of the selection and the author's plan for developing the theme. If the selection is a poem, the student should be asked to copy the selection in order to indicate the proper phrasing and emphasis. To indicate pauses he should insert vertical bars. To indicate emphasis he should underscore words or groups of words. If the selection contains unfamiliar words, the student should list these, divide them in syllables, indicate the pronunciation by diacritical works, and give the dictionary meaning which best suits the word as used in the selection.

Each student should at least once a year be asked to take charge of a lesson or to act as chairman of a program of oral themes. He should be made to feel responsible for the success of the program as a whole and should conduct the discussions as well as announce the numbers. He should be rated on his success in conducting the exercise and his rating be counted in estimating his grade for the month.

One way of encouraging participation in informal discussion, including criticisms of talks, is to rate the chairman on success in eliciting discussion from the class. Such a device will put the chairman on his mettle and will also arouse the loyalty of his classmates. Feeling responsible for a classmate's grade (or more selfishly fearing for his own when his turn comes), each student will develop a conscience for contributing his share to class discussions.

The attitude and personality of the teacher constitute the chief means for cultivating a spirit of fairness and of coöperative effort in conducting class criticisms. It is believed, however, that each of the methods described above may contribute to the attainment of this final objective in oral composition.

C. Number and Distribution of Themes

At least one-fifth of the year's work should be devoted to oral composition exclusive of informal discussions and answers to questions not directly related to oral theme assignments. This means an average of one class period a week.

Though the manner of distribution of time should be left to the individual teacher, some definite plan of distribution is advisable. For instance, one day in every five or two consecutive days in every ten may be called "oral theme" days and the rest of the work be made to conform to this schedule. The last (or the first) eight minutes of every class period or the last (or the first) fifteen minutes of every class period during the first (or second) semester may be devoted to oral composition. In each month's lesson plans 160 minutes distributed according to the general purpose of the month's work may be assigned to oral composition. The whole year's work in oral English may be given in 36 consecutive days. The important thing is to have a definite schedule and to adhere to it.

From year to year the length of themes should increase and their number decrease. By the end of the first year a student should be able to hold the floor for at least two minutes. By the end of the fourth year he should be able to speak for ten or fifteen minutes. This does not mean that all assignments for a given year should be that long or even average that length. For classes of average size, allowing a fair amount of time for criticism, drill, and class discussion, the following distribution will take up the allotted one-fifth of the year's work:

For the first year twenty themes averaging one and a half minutes in length.

For the second year fifteen themes averaging two and a half minutes in length.

For the third year twelve themes averaging three and a half minutes in length.

For the fourth year nine themes averaging five minutes in length.

D. Minimum Essentials

FIRST YEAR

To pass from grade VIII a pupil should as a matter of habit be able—

1. To pronounce these words correctly: *asked, catch, get, going* (especially with *I'm*), *just, was.*

2. To eliminate such grossly illiterate forms as *hisself, hadn't ought, aint got, look* with direct object, *where* in such expressions as "the book *where* she gave me" and "I don't know *where* I'm going or not."

3. To make correct use of the grammatical forms required for written composition.

4. To make complete sentences and show by a falling inflection that the end of the sentence has been reached.

5. To have his composition follow a definite plan and "close with something that sounds like a close."

SECOND YEAR

To pass from Grade IX a pupil should as a matter of habit—

1. Continue to meet the requirements of grade VIII.
2. Pronounce these words correctly: *address, apricot, bade, bouquet, cement, coupon, depot, duty, generally, often, mischievous, real, rinse, roof, something.*
3. Eliminate excessive use of *and, so,* and *but.*
4. Eliminate transfer noises while passing from one sentence to the next.
5. Make correct use of the grammatical forms required for written composition.

THIRD YEAR

To pass from grade X a pupil should as a matter of habit—

1. Continue to meet the requirements of grades VIII and IX.
2. Pronounce these words correctly: *Aeroplane, apparatus, automobile, finance, forehead, government, gratis, grimace, heinous, library, perspiration, perform, pretty, recognize, statistics, surprise.*
3. Make use of the grammatical forms required for written composition.
4. Eliminate awkwardness and restlessness of posture.
5. Eliminate repetition of words and phrases.
6. Establish real contact with his audience.

FOURTH YEAR

With the work of the previous grades actually accomplished the senior year should be left free for removing the deficiencies of individual pupils and rounding out any well-begun plan of the individual teacher.

During the last year the teacher will do well to aim at developing style in oral composition. Students may now be taught to begin spoken sentences with phrases, participial or adverb clauses; to use sentences of different length and structure; to indicate paragraphs by transitional words or phrases; and to close with a certain sense of climax.

Help for the teacher can be found in the following books:

Birmingham and Krapp: *First Lessons in Speech Improvements* (Scribners).

Curry: *Mind and Voice* (Expression Co.).

Lewis: *American Speech* (Scott, Foresman Co.).

McCullough and Birmingham: *Correcting Speech Defects and Foreign Accents* (Scribners).

Mosher: *Production of Correct Speech Sounds* (Expression Co.).

Patterson: *How to Speak* (Little-Brown).

Pelsma: *Essentials of Speech* (Crowell).

Shaw: *Art of Debate* (Allyn and Bacon).

Stinchfield: *Psychology of Speech* (Expression Co.).

Stinchfield: *Speech Pathology With Methods in Speech Correction* (Expression Co.).

IV. WRITTEN COMPOSITION

The general aim of the course in written composition is to teach effective, accurate English and to provide the kind of drill that will make its use habitual. One principle is emphasized in a grade, but each teacher should look forward to the end and should employ every method to make these objectives possible. For example, an eighth-grade pupil must work for interest, planning, accuracy, and ease while he is emphasizing unity. An eleventh-grade pupil must work for unity, interest, and planning while he is emphasizing accuracy and ease. No one grade can hope to attain perfection in any one of these objectives. However, the degree of unity, interest, planning, accuracy, and ease obtained by any group will be determined by the fact that eighth-grade teachers and students attack the course as a whole and by the fact that ninth-, tenth-, and eleventh-grade teachers and students are willing to "carry on" with untiring zeal.

The following outline indicates the gradual definite development of the aims of the course:

Grade Eight—Unity:

Term One—Sentence Unity.

Term Two—Paragraph Unity.

1. Topic Sentence.
2. Proper Sequence.
3. Summary Sentence (if necessary).

Grade Nine—Interest:

Term One—Variety of Sentence Structure.

1. Variety in Form.
2. Variety in Meaning.

Term Two—Variety in Paragraph.

1. Developed by Detail.
2. Developed by Illustration.
3. Developed by Comparison.

Grade Ten—Planning the Composition:

Term One—Outlines.

Term Two—Choice of Words.

Grade Eleven—Accuracy and Ease:

Term One—Accuracy and Ease in Mechanics.

Term Two—Accuracy and Ease in Writing Different Types of Composition.

FIRST YEAR

I. *Aims:*

A. To make sentence unity a habit.

B. To work for paragraph unity.

C. To show the value of the topic sentence, the sequence of ideas, the summary sentence.

D. To obtain correct form.

II. *Activities:*

A. Constant paragraph writing: (1) exposition, (2) narration, (3) description, (4) exposition.

B. Simple outlines from history and outside reading.

C. Short themes developed from simple outlines.

D. Reports based upon school activities.
E. Short biographies, real or imaginary.
F. Letter writing—simple forms of social and business letters (order, complaint, request, application).
G. Written comments on parallel reading. Extend such comments to two paragraphs. The first paragraph should give a synopsis of the story; the second, the pupil's opinion.
H. Dictation of well-constructed paragraphs in which the pupil may detect unity.

TERM ONE

I. *Technical Details:*

A. Habits of form:

1. Write title on first line.
2. Capitalize the first word and all other words of titles, except articles, prepositions, and conjunctions.
3. Begin composition on the second line below the title.
4. Leave a margin of one inch at the left.
5. Indent paragraph one inch.
6. Break words at the end of the line between syllables.
7. Number pages.
8. Write legibly and neatly.
9. In order to make correct spacing and punctuation in letter writing a habit, one form should be adopted and followed without variation. All forms should be discussed.

B. As an aid to the development of sentence sense, drill constantly on recognition of parts of speech, of subject, and of predicate.

C. Drill on the following troublesome verbs: *see, go, do, lie, sit, know, write, eat, take, draw, ought, give, ring.*

D. Drill on "One Hundred Demons":

always	coming	heard	raise	though
among	cough	hear	read	through
again	don't	here	straight	they
any	does	instead	sugar	tonight
ache	done	just	shoes	truly
answer	dear	knew	says	very
been	doctor	know	said	used
business	every	laid	should	which
built	easy	lose	since	where
believes	early	loose	soon	women
busy	enough	seems	many	write
beginning	friend	meant	separate	writing
blue	February	making	their	wood
buy	forty	minute	there	Wednesday
break	grammar	Tuesday	much	wear
can't	guess	two	none	whether
country	hoarse	too	often	whole
could	half	trouble	once	would
color	having	piece	tear	wrote
choose	hour	ready	tired	weak

E. Frequent dictation to render the following punctuation habitual:
   1. *Yes* and *no* in sentences; nouns of address; words in a series; dates; addresses; appositives.
   2. Period; question mark.
   3. Apostrophe.

II. *Results Desired:*
   A. To present papers in proper form.
   B. To write a simple informal letter, observing the accepted form without misspelling familiar words, and without mistakes in punctuation required.
   C. To write a business letter correct in form.
   D. To write a paragraph on a given subject without straying from the subject. Such a paragraph should be without errors in spelling and in punctuation that have been stressed this term.
   E. To write the main thought of a passage from literature suitable for this grade.
   F. To present evidence of a well-kept notebook. This notebook at the close of the term should contain the following work, or work that the teacher endorses as equal to the following:

Nine themes—
   1. Two short narratives—two themes.
   2. Two short expositions—two themes.
   3. Letters.
      a. Friendship—one theme.
      b. Three informal notes—one theme.
   4. Biography—one theme.
   5. Reproduction of appreciation of poetry or prose; this may be parallel reading—one theme.
   6. Dictation—one exercise per week—one theme.

TERM TWO

I. *Technical Details:*
   A. Drill on technical details found in term one.
   B. Drill on the following troublesome verbs: *sing, break, come, throw, run, doesn't, bring, drive, drink, ride, grow, tear, begin.*
   C. Build complex and compound sentences.
   D. Frequent dictation to render the following punctuation habitual:
      1. Comma after an adverbial clause used at the beginning of a sentence.
      2. A comma before *and, but, or, for* when used to join two statements.
      3. Undivided quotations; divided quotations.
   C. Drill on "One Hundred Demons" if necessary, and on Buckingham Extension of Ayres scale.

II. *Results Desired:*
   A. To write a paragraph containing a topic sentence, a proper sequence of ideas, a summary sentence. There should be no mistakes in spelling and in punctuation that have been stressed.
   B. To write a business letter (order, inquiry, complaint) with no mistakes in form, in punctuation, and in spelling that have been stressed.

C. To present evidence of this in a well-kept notebook. This notebook at the close of the term should contain the following themes or work that the teacher endorses as equal to the following:

Type of Theme	*Number of Themes*
Short descriptions of objects, persons or scenes	Three
Business letters—three letters	One
Telegrams—series of three	One
Night letters—two	One
Reproduction of poetry or prose	One
Biography	One
Dictation—one exercise per week	One

LITERATURE

The reading in the first high school year should be selected from the following list. At least four of the books should be assigned for home or library reading. The school library should have on its shelves the books in the reading list and, whenever possible, in more than one copy. The teacher should, of course, put well-chosen additional books for supplementary reading on the library shelves. A minimum number of hours of reading every week should be required, and pupils should be encouraged to read more than the minimum requirement; many pupils will do this if they are allowed access to a "browsing" shelf that holds these extra books. For careful classroom study as many books should be chosen as the time allows.

Romance and Adventure: Stevenson's Treasure Island (C.E.)*; Scott's Ivanhoe (C.E.)*; Lady of the Lake (C.E.)*; Swift's Gulliver's Travels (Voyages to Lilliput and Brobdingnag); Defoe's Robinson Crusoe; Irving's Sketch Book (selections) (C.E.)*; Browning's How They Brought the Good News from Ghent to Aix; Incident of the French Camp; Herve Riel (C.E.)*; Tales of Knightly Adventure; Lowell's The Vision of Sir Launfal.

Great Men; Great Ideals: Mabie's Heroes Every Child Should Know; Hawthorne's Great Stone Face; Julius Cæsar (C.E.)*.

Man and Nature: Kipling's Jungle Book (I and II); London's Call of the Wild.

Humor: Mark Twain's Tom Sawyer, Huckleberry Finn.

SECOND YEAR

I. *Aims:*

1. To teach the student to add interest to his composition by securing variety of sentence structure.
2. To help the student understand variety of paragraph structure.
3. To help him enlarge his vocabulary that he may have a greater choice of words.

(Suggestion: Continued stress on unity. Activities should be selected that will help the teacher show how variety is gained.)

II. *Activities:*

1. Short biographies of characters in fiction, history, art, and science. These can easily be group projects.

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

2. Brief descriptions of persons, places and objects. (See tenth-grade activities for instructions.)
3. Reports based on outside reading, history, school activities. Reports should consist of two paragraphs. The first may contain a brief synopsis; the second, a personal opinion. This form of writing helps other objectives—definiteness, accuracy, grasp of idea.
4. Reports on individual interest.
5. Friendly letters describing persons, places, and objects.
6. Business letters—order, explaining delay, apologizing for error, giving instructions.
7. Advertisements and telegrams—test sense of essential detail, accuracy, and power of appeal.

TERM ONE

I. *Technical Details:*

1. Write compound, complex, declarative, interrogative, and imperative sentences.
2. Work on loose and periodic sentences.
3. Study subordinate clauses.
4. Do not write parts of a sentence for a whole sentence.
5. Do not use run-on sentences.
6. Do not string sentences together with *and's, but's, then's.*
7. Do not put an additional negative word in a negative sentence. (Watch themes for the last four errors.)
8. Drill on punctuation and on troublesome verbs emphasized in eighth grade.
9. Drill on ninth grade list of words in "Buckingham Extension of Ayres Word List." (Copies of the scale may be obtained from the Public School Publishing Company, Bloomington, Illinois.)

II. *Results Desired:*

1. Write a paragraph that has a topic sentence, a sequence of ideas, and a variety of sentence structure. Paragraph should show that the student has made use of drills in punctuation and in spelling.
2. Evidence of ability to grasp thought from reading and to convey the idea in paragraphs containing unity, coherence, and variety.
3. Ability to use the principles of unity, coherence, and variety in letter writing.
4. Ability to present a well-kept notebook. This notebook at the close of the term should include the following work, or work that the teacher endorses as equal to the following:

Type of Theme	*Number of Themes*
Three themes showing variety of type (150-300 words)	Three
Three business letters	One
One friendly letter	One
Biography	One
Reproduction (poetry or prose)	One
Report on parallel reading	One
Dictation (four well-selected paragraphs)	One

TERM TWO

I. *Technical Details:*

1. Work on the development of themes by detail, by illustration, by comparison. (Suggestions may be found in "New Practical English for Schools," Lewis and Hosic, Chapter II; "English for Immediate Use," Law, Chapter XX; "Composition and Rhetoric," Tanner, Chapter VII; "Correct English," Tanner.)
2. Use drills mentioned in term one.
3. Write sentences containing the infinitive and the participle.
4. Encourage discriminate use of coördinate and subordinate conjunction.
5. Be vigilant in following up previous work in punctuation.
6. Drill on the punctuation of non-restrictive elements.
7. Teach the comma with participle groups.
   a. If the participle group comes at the first of a sentence, not used as the subject, place a comma after the phrase.
   b. If the group comes after the word it modifies, use a comma.
   c. If the group comes directly after the word it modifies and sounds like an explanation, use the comma.

II. *Results Desired:*

1. To write a theme or letter in which is found a clear understanding of the following principles:
   a. Sentence unity.
   b. Paragraph unity.
   c. Variety of sentence structure.
2. To be able to develop a paragraph by at least three methods.
3. To present evidence of the above requirements in a well-kept notebook. This notebook should contain the following work, or work that the teacher endorses as equal to the following:

Type of Theme	*Number of Themes*
Variety of type and development	Three
Three business letters	One
One friendly letter	One
Biography	One
Reproduction (poetry or prose)	One
Report and appreciation of parallel reading	One
Dictation (four well-chosen paragraphs)	One

LITERATURE

The reading in the second high school year should be selected from the following books. At least five of the books should be assigned for home or library reading. As many should be chosen for careful classroom study as the time allows.

Romance and Adventure: Macaulay's Lays of Ancient Rome; Dickens's A Tale of Two Cities (C.E.)*; Poe's Short Stories; Doubleday's Stories of Invention; Middle English and Scottish Ballads.

Great Men; Great Ideals: Selections from the Æneid, the Odyssey (C.E.)*; Franklin's Autobiography (C.E.)*; Southey's Nelson.

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

American Life and Ideals: Cooper's Novels; Eggleston's The Hoosier Schoolmaster, The Hoosier Schoolboy; Page's Red Book; Wister's The Virginian; Longfellow's Building of the Ship; a collection of Civil War poems; Whitman's I Hear America Singing.

Man and Nature: Seton-Thompson's Wild Animals I Have Known; selections from Audubon; selections from David Crockett's Autobiography; selections from John Burrough's Essays.

Humor: Harris's Tales from Uncle Remus.

THIRD YEAR

I. *Aims:*

1. To show the pupil that every good piece of writing is based on systematic planning.
2. To lead him to want to plan what he writes.
3. To teach him how to plan.

II. *Activities:*

1. Read a good modern essay, short-story, piece of description. Lead the class to see (a) organization of ideas or incidents, (b) coherence, (c) unity, (d) variety in sentence structure.

   Suggested list of essays and short stories: "Essay and Essay Writing," Tanner; "Types of Essay," Heydrick; "Essays of Present Day Writers," Pence; "Modern Essays," Avent; "Essays and Short Stories," Law; "American Short Stories," Royster.
2. Planning themes of two or three paragraphs.

   Suggested help for teachers: Briggs and McKinney, Book II, Problem III, "Practical English Composition," Miller, Chapters 14-20.
3. Describe any building within range of personal observation. (Teacher may find example of master artist in John Burrough's "Roof-Tree.")

   Suggested order of paragraphs:
   (1) Keynote.
   (2) Surroundings.
   (3) Exterior.
   (4) Interior.
   (5) Conclusion.
4. Describe your own town: Keynote—cultured, provincial, sleepy, busy—unity demands a keynote.

   Suggested order of paragraphs:
   (1) Keynote containing "Four W's."
   (2) Surrounding country.
   (3) Buildings.
   (4) Streets.
   (5) Picture at special time of day.
5. Describe a person: Topic sentence—keynote, items of appearance in order.
6. Write a narrative. Every good story consists of four parts:
   (1) Situation—Four "W's."
   (2) Climax—Point so difficult that there must be a turning point.
   (3) Unraveling—Way out.
   (4) Conclusion—Holding interest to end of narrative.

7. Plan and write an exposition; an argument.
   Suggested help for teachers: "New Practical English," Lewis and Hosic, Chapters XI, XII. An example of exposition by a master artist may be found in "Fisherman's Luck," Henry Van Dyke; "Correct English," Tanner.
8. Planning and writing letters of various types.
9. Outlines, parallels, comparisons—based on classics read, historical happenings, lives and characters studied.

TERM ONE

I. *Technical Details:*

1. Give tests on punctuation and capitalization from time to time to arouse student to a sense of need. Preserve record; compare results; observe progress.
2. Test on recognition of nouns, adjectives, verbs, adverbs, relative pronouns, subordinate conjunctions, coördinate conjunctions, "conjunctive adverbs," relative pronouns.
3. Test on recognition of phrase and clause.
4. Try to eliminate the habit of running sentences together, either without any separating mark or with comma (comma blunder).
5. Spell as a matter of habit the following words:

accidentally	descend	o'clock	safely
accommodate	development	occasionally	separation
accustom	despair	opinion	shepherd
address	disapprove	originally	secretary
against	disturb	particularly	similar
although	embarrass	peaceably	studying
altogether	enthusiastically	preparation	surely
amount	especially	privilege	supplies
apologize	few	porch	suspicious
appproach	fourteen	possibly	successful
argument	greatest	possess	syllable
around	guard	practically	unconscious
arrangement	hurrying	precede	unmanageable
arrive	imagine	prisoner	victuals
athletics	judgment	prove	victorious
benefit	marriage	recommend	village
captain	merely	religious	villain
committee	naturally	replies	weird
corner	nickel	repetition	woman
definitely	noticeably	ridiculous	women

II. *Results Required:*

1. Perfect form.
2. Observe rules of syntax and punctuation with 90 per cent accuracy.
3. Be able to recognize faults in unity, coherence, and emphasis in sentence and paragraph.
4. Organize material into an outline and write a theme of, at least, 800 words.

5. Write letters in perfect form and with courtesy and completeness.
6. To present evidence of a well-kept notebook. This notebook should contain the following themes, or work that the teacher endorses as equal to the following:

Type of Theme	*Number of Themes*
One long theme (1200 to 1500 words)	One
One theme (700 to 1000 words) or Four themes (200 to 300 words)	One
Four analyses of selections of literature	Four
Four business letters	One
One social letter	One
One reproduction (poetry or prose)	One

TERM TWO

I. *Technical Details:*

1. Try to eliminate dangling modifiers.
2. Seek to secure emphasis through the careful placing of modifiers.
3. Do not allow too many coördinate clauses.
4. Test to see if the use of the apostrophe is habitual.
5. Continue occasional drill on spelling words given in previous terms.

II. *Results Desired:*

1. Organize material into an outline and write theme, applying principles of unity, coherence, and emphasis with more ease and accuracy than in preceding terms.
2. Write letters with more ease and accuracy than in preceding terms.
3. To present notebook containing the following work, or work that the teacher considers equal to the following:

   One long theme (1200-1500 words), correct in form, carefully punctuated. This theme must show some knowledge of of unity, coherence and emphasis.

   Three short themes showing knowledge of different kinds of paragraph development.

   One argument with, at least, two proofs well-established.

One magazine article: synopsis of article, opinion of article	One theme
Biography	One theme
Report on parallel reading	One theme
Three business letters	One theme
Reproduction (poetry or prose)	One theme

LITERATURE

The reading in the third high school year should be selected from the following books. At least five books should be assigned for home or library reading. As many should be chosen for careful classroom study as the time allows.

Romance and Adventure: Kipling's Captains Courageous; Doyle's Sherlock Holmes; Kingsley's Westward Ho!; Merchant of Venice (C.E.)*;

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

Hamlin Garland's Boy Life on the Prairie; Arnold's Sohrab and Rustum (C.E.)*.

Great Men; Great Ideals: Macaulay's Johnson (C.E.)*; Drinkwater's Abraham Lincoln.

American Life and Ideals: Parkman's Oregon Trail; Harte's Luck of Roaring Camp, Outcasts of Poker Flats; Cable's Old Creole Days; Simms's Yemassee; Craddock's Prophet of Great Smoky; Hale's Man Without a Country; Grady's The New South; Riis's The Making of an American; Mary Antin's The Promised Land; Roosevelt's True Americanism; a collection of Southern poetry; Brook's North Carolina Poetry; Lowell's Odes; a collection of Southern prose and poetry; Whittier's Centennial Hymn.

Man and Nature: Selections from Audubon; selections from Crockett's Autobiography; Hudson's Idle Days in Patagonia.

Fancy and Imagination: A Midsummer Night's Dream; As You Like It (C.E.)*; Coleridge's The Ancient Mariner (C.E.)*; selections from Alfred Noyes; selections from Sidney Lanier.

Humor: Mrs. Wiggs of the Cabbage Patch; Noyes's Forty Singing Seamen; O. Henry's The Ransom of Red Chief; Goldsmith's She Stoops to Conquer.

FOURTH YEAR

I. *Aims:*

1. To increase accuracy and ease in the mechanics of English.
2. To increase accuracy and ease in writing narration, description, exposition, and argumentation.
3. To develop an interest in combining these forms in the manner of modern writing for social and business use.

II. *Activities:*

1. The world of work: Class may choose a trade or profession. Groups or individuals may report to class, through theme, what they have learned from observation, from personal interviews, from reading.
2. Travel: Description and narration of actual experiences.
3. History: Patriotism; Nationalism—biography, appreciation.
4. Ethical matters: (1) Our behavior at home; (2) Our behavior at school—classrooms, locker rooms, halls, cafeteria, playground, school entertainments; (3) Our behavior in public places—street, street car, theater, library, store, road, truck.
5. Health: Keeping well; work of such organization as Red Cross, Anti-Tuberculosis Associations, Boy Scouts, Camp Fire Girls.
6. Community concerns: A good place to live, history and important people, work of community, interesting places.
7. Nature in our community: Weather, orchards, gardens, birds, animals, crops, soil.
8. Our fascinating selves: Reminiscences, descriptions, characterizations, adventures, interesting relatives, ancestors, matters on which I am an authority.
9. Adventures among books.

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

10. Business letters, letters of apology, appreciation.
11. Class anthologies: Collect interesting papers written during the term. Let committees edit compositions—write table of contents, draw illustrations.
12. Criticisms and appreciations of magazines.

TERM ONE

I. *Technical Details:*

1. Review frequently all points on punctuation, grammar, capitalization in practical use for writing accurately.
2. Test often for recognition of errors and for ability to apply rules.
3. Be able, as a matter of habit, to spell these words correctly:

abbreviation	contagious	irrigation	proceed
academy	convenience	inflammation	procedure
accuracy	courtesy	intellectual	professor
aggravate	courteous	intelligence	proficient
ancient	customary	innocence	pursuit
announcement	delicious	knowledge	recollect
anxious	descendant	license	responsibility
annually	democracy	magazine	rehearsal
architect	dissipation	management	restaurant
attendance	double	manual	seminary
assistant	ecstasy	memorize	sophomore
balance	electric	merchandise	superintendent
boundary	eligible	millinery	superstitious
bulletin	exaggerate	miscellaneous	supersede
calendar	exhausted	murmur	specimen
canyon	extraordinary	mysterious	symmetry
carriage	extravagance	nuisance	sympathize
cataract	familiar	obstacle	temperature
citizen	foreigner	opposite	treasurer
college	guardian	pennant	unnecessary
commercial	gymnasium	performance	unreasonable
connection	horizontal	persuade	vegetable
conquering	humorous	poisonous	vengeance
conscientious	hypocrisy	prejudice	visible
considerably	inaugurate	presence	

II. *Results Desired:*

1. Student must correct his own paper under the supervision of teacher. The corrected draft must attain 95 per cent accuracy in syntax, 95 per cent accuracy in punctuation, and 100 per cent accuracy in spelling.
2. The completed notebook should contain the following work or the value of the following:

Nine Themes

Two long themes (1200-1500 words)
Four short themes (200-300 words)
Biography
Book reports
Letters and reproductions

TERM TWO

I. *Technical Details:*

1. Test to find weakness, and drill on errors.
2. Note use of subjunctive: (a) If I were he, I should go. (b) If he be there, let him come. (c) I wish I were well.
3. Review the use of *like* and *as*.
4. Watch the possessive.
5. Use the indefinite pronouns.
6. Be sure that the student knows these sixty troublesome verbs:

am	drown	lie (recline)	sting
attack	eat	lose	strike
become	flow	light	swear
bite	fly	pay	swell
blow	forget	prove	seem
break	get	ring	take
bring	go	rise	teach
burst	grow	run	thrive
catch	hang	see	throw
choose	know	set	tread
come	lay	shoes	wake
dive	lead	sing	wear
do	leave	sit	win
drink	lend	sling	wring
drive	lie (falsify)	spit	write

II. *Results Desired:*

1. To present notebooks containing nine themes, or the value of nine themes. Attempt to show improvement in accuracy, ease, force, and interest.
2. Suggestions for general use:

   Compositions should be corrected by students after errors are indicated by teacher.

   Standard scales for marking compositions should be used occasionally. They give a basis for comparison, and they also show the result obtained by objective scoring.

COMPOSITION SCALES

Ayres: *Measuring Ability in Spelling.* Russell Sage Foundation, New York.

Hillegas: *Composition Scale.* Bureau of Publications, Teachers' College, Columbia University, New York.

Thorndyke: *Extension of Hillegas Scale.* Bureau of Publications, Teachers' College, Columbia University, New York.

Trabue: *Composition Scale.* Bureau of Publications, Teachers' College, Columbia University, New York.

Hudelson: *English Composition Scale.* World Book Company, Yonkers-on-Hudson.

Lewis: *Scales for Measuring Special Types of English Composition.* World Book Company, Yonkers-on-Hudson.

LITERATURE

The reading of the fourth high school year should be selected from the following books. At least six of the books should be assigned for home or library reading. As many should be chosen for careful classroom study as the time allows.

Romance and Adventure: Blackmore's Lorna Doone; Service's Spell of the Yukon; Byron's Prisoner of Chillon; N. H. Moore's Deeds of Daring Done by Girls.

Great Men; Tragic Failures: Macbeth (C.E.)*; Hamlet (C.E.)*; Carlyle's Essay on Burns (C.E.)*; Browning's Andrea del Sarto.

American Life and Ideals: Garland's A Son of the Middle Border; O. Henry's Heart of the West; Burke's Speech on Conciliation (C.E.)*; Washington's Farewell Address and Webster's Bunker Hill Oration (C.E.)*; Lincoln's Gettysburg Address; Lincoln's Letters; selections from Wilson's speeches; Moody's Ode in Time of Hesitation; Graham's Education and Citizenship; a collection of World War poems; a collection of American short stories.

Man and Nature: Selections from Huxley.

Fancy and Imagination: Peabody's The Piper; Milton's Minor Poems (C.E.)*; Golden Treasury, Book IV; The Tempest (C.E.)*.

Humor: Sheridan's The Rivals; Twelfth Night.

ADDITIONAL BOOKS FOR HOME READING

From the following list substitutions may, in some cases, be made for books recommended in the earlier lists. Substitution is advisable only when the books on the recommended list have been read in the lower grades or when the selections are unquestionably too easy or too difficult for the attainments of any particular class. To provide material for substitution is not, however, the main purpose of the list. Its large aim is to furnish the English teacher a group of books of diverse appeals to suit the interests of individual pupils. The list is intended, above all, to minister to the pleasure and profit of those promising pupils who ask for more reading than is required merely "to pass the course."

Credit for outside reading may be given either by assigning definite values to certain books (as is done in the "Hartford Reading Lists," published by Henry Holt and Company) and thus require a definite number of credit points for the year; or by requiring one book a month—five books for the semester—and thus give a certain credit each month for that work.

A Minimum List of Books for Home Reading

This list is designed principally for those schools with limited library facilities or for those teachers of English who prefer to require certain books rather than try to provide for individual tastes.

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

FIRST YEAR

Clemens: Tom Sawyer. *London:* The Call of the Wild. *Stevenson:* Treasure Island (C.E.)*; *Dickens:* Oliver Twist (C.E.)*. *Scott:* Ivanhoe (C.E.)*. *Alcott:* Little Women. *Cooper:* The Spy. *Keller:* The Story of My Life. *Shakespeare:* A Midsummer Night's Dream (C.E.)*. *Homer:* The Odyssey (Palmer translation); The Odyssey (Bates translation).

SECOND YEAR

Dickens: David Copperfield (C.E.)*. *Cooper:* The Last of the Mohicans (C.E.)*. *Barrie:* The Little Minister. *Scott:* The Talisman. *Bunyan:* Pilgrim's Progress. *Blackmore:* Lorna Doone (C.E.)*. *Antin:* The Promised Land. *Riis:* The Making of an American. *Roosevelt:* Letters to His Children. *Shakespeare:* Julius Cæsar (C.E.)*.

THIRD YEAR

Wallace: Ben Hur. *Dickens:* A Tale of Two Cities (C.E.)*. *Scott:* Kenilworth (C.E.)*. *Austen:* Pride and Prejudice (C.E.)*. *Thackeray:* Henry Esmond (C.E.)*. *Parkman:* The Oregon Trail (C.E.)*. *Muloch:* John Halifax Gentleman. *Garland:* A Son of the Middle Border. *Goldsmith:* The Vicar of Wakefield (C.E.)*. *Shakespeare:* King Henry V (C.E.)*.

FOURTH YEAR

Thackeray: Vanity Fair. *Hugo:* Les Miserables. *Eliot:* Adam Bede. *Hawthorne:* The Scarlet Letter. *Kingsley:* Westward Ho! *Howells:* The Rise of Silas Lapham. *Dickens:* Great Expectations. *Shakespeare:* Othello (C.E.)*. *Addams:* Twenty Years at Hull House. *Bok:* The Americanization of Edward Bok.

A Longer List of Books for Home Reading

FIRST YEAR

I FICTION

M. Robertson: Sinful Peck. *R. L. Stevenson:* Kidnapped; David Balfour. *Bullen:* The Cruise of the Cachalot. *Hopkins:* She Blows and Spurns at That. *Cooper:* The Last of the Mohicans. *S. E. White:* The Riverman. *Ralph Connor:* Glengarry Schooldays; The Man from Glengarry. *F. H. Smith:* Colonel Carter of Cartersville. *T. N. Page:* The Old Gentleman of the Black Stock. *Lincoln:* The Portygee. *Tarkington:* Seventeen. *Ervine:* Alice and a Family. *Rinehart:* The Circular Staircase. *Clemens:* Personal Recollections of Joan of Arc; Pudd'nhead Wilson; Tom Sawyer; Huckleberry Finn. *R. L. Stevenson:* The Bottle Imp. *E. Hough:* Fifty-four Forty or Fight. *A. C. Doyle:* The White Company. *Sienkiewicz:* With Fire and Sword. *Kipling:* Kim. *Dickens:* Oliver Twist. *Scott:* Ivanhoe. *Tarkington:* Monsieur Beaucaire. *Weyman:* A Gentleman of France. *McCarthy:* The Glorious Rascal. *Defoe:* Robinson Crusoe. *Swift:* Gulliver's Travels. *Bunyan:* Pilgrim's Progress. Arabian Nights. *Hawes:* The Mutineers; The Quest; The Dark Frigate. *Ollivant:* Bob, Son of Battle.

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

II Short Stories

Kipling: Plain Tales from the Hills; The Day's Work. *Irving:* The Sketch Book; Tales of a Traveller. *Page:* In Ole Virginia. *Hawthorne:* Tales of the White Hills. *Bret Harte:* The Luck of Roaring Camp. *Garland:* They of the High Trails. *Grenfell:* Tales of the Labrador. *E. A. Poe:* Tales. *Cobb:* Old Judge Priest. *Kelly:* Little Aliens. *W. A. White:* The Court of Boyville. *Brown:* Rab and His Friends. *Aldrich:* Marjorie Daw and Other Stories. *M. R. Andrews:* The Perfect Tribute.

III Drama

Shakespeare: A Midsummer Night's Dream; Twelfth Night. *MacKaye:* Washington, the Man Who Made Us. *Drinkwater:* Abraham Lincoln. *Hazelton:* The Yellow Jacket. *Maeterlinck:* The Blue Bird. *Gregory:* The Dragon. *Bangs:* The Bicycleers and Other Farces. *MacKaye:* The Beau of Bath and Other One-Act Plays.

IV Poetry

Homer: The Iliad (Palmer translation); The Odyssey (Palmer translation). The Song of Roland (translated by Butler). *Scott:* Marmion; The Lay of the Last Minstrel. *Longfellow:* Tales of a Wayside Inn. *Stevenson:* Ballads. *Teter:* One Hundred Narrative Poems. *Scudder:* American Poems. *K. Bates:* A Ballad Book. *Wells:* Nonsense Anthology.

V Non-Fiction (Essays, Travel, Biography)

Hubbard: A Message to Garcia. *Seton:* Wild Animals I Have Known. *Abbott:* Days Out of Doors. *Jordan:* The Story of Matka. *Fabre:* Social Life of the Insect World. *Treves:* The Cradle of the Deep. *Marden:* Choosing a Career. *Weaver:* Vocations for Girls. *Paine:* Ships and Sailors of Old Salem. *O'Connor:* Heroes of the Storm. *Van Loon:* The Story of Mankind. *P. Colum:* My Irish Year. *Young:* Alaska Days With John Muir. *J. Muir:* Travels in Alaska. *Riis:* Hero Tales of the Far North. *Muir:* The Cruise of the Corwin. *Seton:* A Woman Tenderfoot in Egypt. *S. E. White:* The Land of Footprints. *Roosevelt:* African Game Trails. *Franklin:* Autobiography. *Garland:* Boy's Life on the Prairie. *Hale:* A New England Boyhood. *Paine:* Boy's Life of Mark Twain. *Brady:* Paul Jones. *Sprague:* David Crockett. *Nicolay:* Boy's Life of Lincoln. *Hagedorn:* Boy's Life of Roosevelt. *Bolton:* Girls Who Became Famous. Life and Letters of Louisa Alcott. *Lodge and Roosevelt:* Hero Tales from American History. *White:* Daniel Boone, Wilderness Scout.

SECOND YEAR

I Fiction

W. C. Russell: The Wreck of the Grosvenor. *London:* The Sea Wolf. *Masefield:* Lost Endeavor. *Melville:* Moby Dick. *Mitchell:* Hugh Wynne, Free Quaker. *Cooper:* The Deerslayer; The Pathfinder; The Pioneers; The Prairie. *Wister:* The Virginian. *Bacheller:* A Man for the Ages; In the Days of Poor Richard. *Connor:* Black Rock. *Allen:* A Kentucky Cardinal. *Dickens:* David Copperfield; Oliver Twist. *F. H. Smith:* Caleb

West, Master Diver. *Gaskell:* Cranford. *Stockton:* Rudder Grange. *Morley:* The Haunted Bookshop; Parnassus on Wheels. *Lever:* Charles O'Malley; Rory O'Moore. *Stackpole:* Patsy. *Harland:* The Cardinal's Snuffbox. *Moffett:* Through the Wall. *E. Hough:* The Covered Wagon. *Woolson:* Anne. *Scott:* Guy Mannering. *M. Johnston:* To Have and to Hold. *W. Churchill:* The Crisis. *Scott:* The Talisman. *H. H. Jackson:* Ramona. *Davis:* Captain Macklin. *Dumas:* The Count of Monte Cristo. *Lytton:* Last Days of Pompeii. *W. H. Davis:* A Friend of Cæsar. *Tarkington:* Monsieur Beaucaire. *Dumas:* The Three Musketeers. *Moore:* The Jessamy Bride. *Crane:* The Red Badge of Courage. *Gale:* Friendship Village. *Porter:* Scottish Chiefs.

II SHORT STORIES

Connolly: Out of Gloucester. O. Henry Stories. *Stockton:* The Lady or the Tiger and Other Stories. *Deland:* A New England Nun and Other Volumes; Old Chester Tales. *Wells:* Thirty Strange Stories. *Poe:* Tales. *Field:* A Little Book of Profitable Tales. *Doyle:* Sherlock Holmes Stories. *Ashmun:* Modern Short Stories. *Thomas:* Atlantic Narratives. *Heydrick:* Americans All.

III DRAMA

Shakespeare: The Merchant of Venice; A Winter's Tale; Richard II. *Fitch:* Beau Brummel; Nathan Hale; Barbara Freitchie. *Mackaye:* The Scarecrow. *Peabody:* The Piper. *Forbes:* The Famous Mrs. Fair. *Barrie:* The Admirable Crichton; Half Hours. *Gregory:* Irish Folk History Plays. *Howells:* The Mouse-Trap and Other Farces. *H. L. Cohen:* One-Act Plays of Modern Authors.

IV POETRY

Homer: (five books) The Iliad (Bates or Palmer translation); (five books) The Odyssey (Bates or Palmer translation). *Byron:* The Prisoner of Chillon; Mazeppa. *Arnold:* Sohrab and Rustum. *Longfellow:* The Golden Legend. *Macaulay:* Lays of Ancient Rome. *Service:* The Spell of the Yukon; Rhymes of a Red Cross Man. *Whittier:* Snowbound. *Masefield:* Reynard the Fox. *Kipling:* Barrack Room Ballads. *Coleridge:* The Rime of the Ancient Mariner. *Rittenhouse:* Little Book of American Poets. *Long:* Selections from American Poetry. *Hart:* Popular English Ballads. *Mabie:* A Book of English Ballads. *Wells:* Parody Anthology. *McNeil:* Lyrics from Cottonland.

V NON-FICTION (Essays, Travel, Biography)

Bangs: From Pillar to Post. *Lucas:* Old Lamps for New. *Roosevelt:* The Stoneman's Life; American Ideals and Other Essays. *Nutting:* The Track of the Typhoon. *Beebe:* Jungle Peace. *Burroughs:* Wake Robin. *Van Dyke:* Fisherman's Luck. *Warner:* Endicott and I. *Briggs:* College Girls; College Life. *Stockton:* Buccaneers and Pirates of Our Coast. *Powell:* First Through the Grand Canyon. *Stevenson:* An Amateur Emigrant. *Clemens:* The Innocents Abroad. *Stefansson:* My Life With the Eskimo. *Dana:* Two Years Before the Mast. *Muir:* A Thousand-Mile Walk to the Gulf. *Roosevelt:* African Game Trails; Hunting Trips

of a Ranchman. *F. H. Smith:* Gondola Days. *Roosevelt:* Theodore Roosevelt, An Autobiography. *Joseph Jefferson:* Autobiography. *Garland:* A Son of the Middle Border; A Daughter of the Middle Border. *E. Bok:* A Dutch Boy Fifty Years After. *Richards:* Life of Florence Nightingale. *Paine:* Life of Mark Twain. *Overton:* Life of Stevenson. *Bradford:* Lee, the American. *Froude:* Cæsar, a Sketch. *Abbott:* Impressions of Roosevelt. *White:* Plutarch's Lives. *Hubbard:* Little Journeys to the Homes of American Statesmen. *Bigelow:* Letters of Benjamin Franklin. *Paine:* Letters of Mark Twain.

THIRD YEAR

I FICTION

Conrad: Typhoon. *Gale:* Miss Lula Bett. *Ford:* Janice Meredith. *Atherton:* The Conqueror. *Page:* Red Rock. *Harrison:* V. V.'s Eyes—Queed. *Coble:* Dr. Sevier. *W. Black:* Judith Shakespeare. *Hémon:* Maria Chapdelaine. *Locke:* The Beloved Vagabond. *Hawthorne:* The House of Seven Gables. *Dickens:* David Copperfield; The Old Curiosity Shop. *Rinehart:* An Amazing Interlude. *Kipling:* The Light That Failed. *Barrie:* Sentimental Tommy. *Parker:* The Right of Way. *Stevenson:* The Master of Ballantrae. *Cather:* My Antonia. *Jewett:* The Country of the Pointed Firs. *Ford:* The Honorable Peter Stirling. *Tarkington:* Alice Adams; The Turmoil. *Dickens:* Pickwick Papers. *Bennett:* Helen With the High Hand. *Thackeray:* The Newcomers. *Brontë:* Jane Eyre. *Parker:* In the Seats of the Mighty. *Stevenson:* St. Ives; Dr. Jekyll and Mr. Hyde. *Barrie:* The Little Minister. *Weyman:* A Gentleman of France. *Cervantes:* Don Quixote. Auccassin and Nicolette. *Goldsmith:* The Vicar of Wakefield. *Farnol:* An Amateur Gentleman.

II SHORT STORIES

Noyes: Walking Shadows. *O. Henry:* Stories. *Maclaren:* Beside the Bonnie Brier Bush. *Murfee:* In the Tennessee Mountains. *Stevenson:* Short Stories. *Poe:* Tales. *Kipling:* Stories. *Thomas:* Atlantic Narratives. *Smith:* Short Stories Old and New. O. Henry Prize Stories (for various years). *M. R. Andrews:* The Courage of the Commonplace. *Baldwin:* American Short Stories. *French:* The Best Short Stories. *Mikels:* Short Stories for High Schools.

III DRAMA

Shakespeare: Richard III; King Henry IV. *Goldsmith:* She Stoops to Conquer. *Van Dyke:* The House of Rimmer. *Pinero:* Sweet Lavender. *Barker* and *Houseman:* Prunella. *Mackaye:* Jeanne D'Arc. *McCarthy:* If I Were a King. *Tarkington:* Intimate Strangers. *Zangwill:* Merely Mary Anne. *Belasco:* The Return of Peter Grimm. *Rostand:* The Princess Far-Away. *Hauptman:* The Sunken Bell. *Milne:* Mr. Pim Passes By. *Gregory:* Irish Folk—History Plays. *Yeats:* Collected Short Plays. *Synge:* Collected Plays. *Galsworthy:* Six Short Plays. *S. Glaspell:* Plays. *Leonard:* The Atlantic Book of Modern Plays.

IV Poetry

Goldsmith: The Deserted Village and the Traveler. *Masefield:* King Cole. *Kipling:* Seven Seas. *Shakespeare:* Sonnets. *Gray:* Elegy in a Country Churchyard. *Coleridge:* Kubla Khan and Christabel. Burns's Poems in the Golden Treasury. *Quiller-Couch:* The Oxford Book of Verse. *Richards:* High Tide. *Rittenhouse:* The Little Book of Modern Verse; Second Book of Modern Verse. *Untermeyer:* Modern British Poems; Modern British and American Poems; Yesterday and Today. *Repplier:* Book of Modern Verse. *Teasdale:* Rainbow Gold.

V Non-Fiction (Essays, Travel, Biography)

Crothers: Among Friends; By the Christmas Tree. *Wagner:* The Simple Life. *Cabot:* What Men Live By. *Grayson:* Adventures in Friendship. *Mabie:* Books and Culture. *Stevenson:* A Christmas Sermon. *Smith:* What Can Literature Do For Me? Bacon's Essays (at least five). *Lamb:* Essays of Elia (at least five). *Macaulay:* Essay on Addison. *Van Dyke:* The Open Sea. *Palmer:* Why Go to College? *Canfield:* Letters to Young Men. *Center:* The Worker and His Work. *Roosevelt:* The Winning of the West. *Kipling:* Letters of Travel. *Stevenson:* An Inland Voyage. *Custer:* Boots and Saddles. *Rollins:* The Cowboy. *Parkman:* The Oregon Trail. *Hudson:* Far Away and Long Ago. *Mary Antin:* The Promised Land. *Bernhardt:* Memories of My Life. *Southern:* The Melancholy Tale of Me. *Shaw:* Story of a Pioneer. *Helen Keller:* The Story of My Life. *Howells:* A Boy's Town. *Bagley:* The Old Virginia Gentleman. *Carpenter:* Joan of Arc. *Barrie:* Margaret Ogilvy. *Howells:* My Mark Twain. *Ida Tarbell:* Life of Lincoln. *Ainger:* Letters of Charles Lamb. *Lanier:* Letters of Sidney Lanier. *Bishop:* Letters of Roosevelt to His Children. *Greenlaw:* Familiar Letters.

FOURTH YEAR

I Fiction

Conrad: Children of the Sea. *Walpole:* Fortitude. *Wharton:* The House of Mirth. *Ervine:* Changing Winds. *McFee:* Command. *Eliot:* Adam Bede; The Mill on the Floss; Romola. *Hawthorne:* The Scarlet Letter. *Dickens:* Great Expectations; Bleak House; Little Dorrit; Dombey and Son. *Canfield:* The Bent Twig; Rough-hewn. *Deland:* The Iron Woman; The Awakening of Helena Ritchie. *Cather:* One of Ours. *Hugo:* Toilers of the Sea. *Austen:* Pride and Prejudice; Sense and Sensibility. *Howells:* The Rise of Silas Lapham. *Churchill:* The Inside of the Cup. *S. Lewis:* Babbitt; Main Street. *Morley:* Where the Blue Begins. *De Morgan:* Alice for Short. *Thackeray:* Vanity Fair; Henry Esmond. *Walpole:* The Green Mirror. *Leavitt:* Stories and Poems from the Old North State. *Blackmore:* Lorna Doone. *D. Byrne:* Messer Marco Polo. *Scott:* Kenilworth. *Reade:* The Cloister and the Hearth. *M. Johnston:* The Long Roll. *C. Kinglsey:* Westward Ho! *M. Johnston:* Cease Firing. *Craik:* John Halifax, Gentleman. *Poole:* The Harbor. *Hugo:* Les Miserables. *Seinkiewicz:* Quo Vadis. *Burney:* Evelina. *Sabatini:* Captain Blood; Carolinian.

II SHORT STORIES

Conrad: A Set of Six; Youth. *O. Henry:* Stories. *Morley:* Tales From a Roll Top Desk. *Alice Brown:* Meadow-Grass. *Zangwill:* Children of the Ghetto. *De Maupassant:* The Odd Number. *R. L. Stevenson:* Short Stories. *Poe:* Tales. *Cody:* The World's Greatest Stories. *Heydrick:* Types of the Short Story. *Howells:* Great Modern American Stories. *O'Brien:* The Best Short Stories (various years). *O. Henry:* Prize Stories (various years). *Thomas:* Atlantic Narratives.

III DRAMA

Shakespeare: The Tempest; Othello; Hamlet; King Lear. *Sheridan:* The Rivals. *Browning:* Pippa Passes. *Noyes:* Sherwood. *Kennedy:* The Servant in the House. *Jerome:* The Passing of the Third Floor Back. *Wilde:* The Importance of Being Earnest. *Crothers:* He and She. *Galsworthy:* Loyalties; The Silver Box, The Pigeon; *Molière:* The Imaginary Invalid. *Rostand:* Cyrano de Bergerac; L'Aiglon. *G. B. Shaw:* Arms and the man. *Barrie:* What Every Woman Knows. *W. V. Moody:* The Great Divide. *Gregory:* Irish Folk—History Plays. *Dunsany:* Five Plays. *Maeterlinck:* Collected Short Plays. *Yeats:* Collected Short Plays. *Drinkwater:* Abraham Lincoln; Robert E. Lee. *Millay:* King's Henchman. *Synge:* Riders to the Sea; Collected Plays. *Barrie:* Echoes of the War. *Koch:* Carolina Folk Plays (Series 1-4). *Dickinson:* Wisconsin Plays. *Baker:* Plays of Harvard Dramatic Club.

IV POETRY

Auslander: Winged Horse Anthology. *Omar Khayyám:* The Ṛubáíyát. *Tennyson:* The Princess. *Masefield:* Story of the Round House. *Noyes:* Tales of the Mermaid Tavern. *Browning:* Selected Short Poems. *Gummere-Frost-West:* Running Brook. *Frost:* Selected Poems; North of Boston. *Hibbard:* The Lyric South. *Kipling:* Five Nations. *Keats:* Lamia—Eve of St. Agnes; La Belle Dame Sans Merci; Ode on a Grecian Urn. *Shakespeare:* Sonnets. *Wordsworth:* Poems in the Golden Treasury. *Shelley:* Adonais. *Quiller-Couch:* The Oxford Book of Verse. *Richards:* High Tide. *Rittenhouse:* The Little Book of Modern Verse. *Untermeyer:* Modern British Poems; Modern American Poems; Modern British and American Poems. *McNeil:* Songs, Merry and Sad.

V NON-FICTION (Essays, Travel, Biography)

Auslander and *Hill:* The Winged Horse. *Crothers:* The Gentle Reader; Humanely Speaking. *Eliot:* Durable Satisfactions of Life. *Erskine:* The Moral Obligation to be Intelligent. *Cabot:* What Men Live By. *Hagedorn:* You Are the Hope of the World. *Keller:* The World I Live In; Optimism. *Leacock:* Essays and Literary Studies. *C. Morley:* Essays. *Grayson:* The Friendly Road. *Howells:* Among My Books. *Palmer:* Self-Cultivation in English. *Smith:* What Can Literature Do For Me? *Ruskin:* Sesame and Lilies. *Holmes:* The Autocrat of the Breakfast Table. *Emerson:* Essays (at least five). *Macaulay:* Essay on Johnson. *Morley:* Modern Essays. *Thoreau:* Cape Cod. *Briggs:* College Girls; College Life. *Rolland:* Musicians of Today. *Riis:* How the Other Half Lives. *Canfield:* Home Fires in France. *Steiner:* From Alien to Citizen. *E. Bok:*

The Americanization of Edward Bok. *Lindbergh:* "We." *Becker:* Adventures in Reading. *Shuman:* How to Judge a Book. *Dargan:* Highland Annals. *Thomas:* The Print of My Remembrance. *J. Addams:* Twenty Years at Hull House. *Field:* Yesterdays With Authors. *Palmer:* Alice Freeman Palmer. *Balfour:* Life of Stevenson. *Smith:* Biography of O. Henry. *Dyer and Martin:* Edison, His Life and Inventions. *Colvin:* Letters of Stevenson. *Grayson:* Adventures in Friendship; Adventures in Understanding.

Minimum List Suggested by Conference on College Entrance Requirements in English

FIRST AND SECOND YEARS

Alcott: Little Men. *Barrie:* Peter and Wendy. *Burroughs:* Birds and Bees; Squirrels and Other Fur-Bearers; Curious Homes and Their Tenants. *Bullen:* The Cruise of the Cachalot. *Brown:* Rab and His Friends. *Cooper's* Novels (C.E.)*. *Lanier:* The Boy's King Arthur. *Oliphant:* Bob, Son of Battle. *Gilder:* The Autobiography of a Tom Boy. *Dodge:* Hans Brinkler on Skates. *Ouida:* Dog of Flanders; A Nuremberg Stove. *Rice:* Mrs. Wiggs of the Cabbage Patch. *Roosevelt:* Stories of the Great West; His Letters to His Children. *Riley:* Poems Here at Home. *Thwaites:* Daniel Boone. *Dickens:* Oliver Twist (C.E.)*. *Page:* Two Little Confederates. *Garland:* A Boy's Life on the Prairie. *Peabody:* Old Greek Stories. *Haaren and Poland:* Famous Men of Rome; Famous Men of the Middle Ages. *Kipling:* Barrack Room Ballads (C.E.)*. *Macaulay:* Lays of Ancient Rome (C.E.)*. *Stevenson:* Kidnaped (C.E.)*; David Balfour. *White:* The Court of Boyville; The Magic Forest.

THIRD AND FOURTH YEARS

Doyle: The White Company. *Kelly:* Little Citizens. *Kipling:* The Day's Work; The Light That Failed. *Byron:* The Prisoner of Chillon (C.E.)*. *Bolton:* Girls Who Became Famous; Boys Who Became Famous. *Grenfel:* Vikings of Today. *Parton:* Captains of Industry. *Noyes:* Sherwood; Drake. *Shakespeare:* The Merchant of Venice (C.E.)*. *Stevenson:* Travels With a Donkey (C.E.)*; An Inland Voyage (C.E.)*. *Bunyan:* Pilgrim's Progress (C.E.)*. *Barrie:* The Little Minister. *Kingsley:* Westward Ho! (C.E.)*. *Weyman:* A Gentleman of France; Under the Red Robe. *Clemens:* A Connecticut Yankee at King Arthur's Court; Life on the Mississippi. *Masefield:* The Story of a Round House; Salt Water Ballads. *McNeill:* Lyrics from Cotton Land. *Addams:* Twenty Years at Hull House. *Scott:* Quentin Durward; Kenilworth (C.E.)*. *Page:* In Ole Virginia. *Jerome:* The Passing of the Third Floor Back. *Boswell:* Life of Johnson (C.E.)*. *Melville:* Typee; Moby Dick. *Hugo:* Les Miserables. *Milton:* Paradise Lost, Books I and II (C.E.)*. *Goldsmith:* The Deserted Village (C.E.)*. *Barrie:* Half-Hours. *Rostand:* Cyrano de Bergerac. *Curtis:* Prue and I (C.E.)*. *Macaulay:* Essay on Milton (C.E.)*. *Allen:* The Kentucky Cardinal. *Carnegie:* An Autobiography. *Parton:* Captains of Industry. *Muir:* Travels in

*NOTE. "C. E." indicates that books so marked may be submitted for college entrance credit.

Alaska. *Irving:* Rip Van Winkle (C.E.)*. *Fabre:* Bramble Bees and Others; The Life of the Spider. *Keller:* The World I Live In. *Muir:* The Story of My Boyhood and Life. *Thoreau:* Walden (C.E.)*. *Crane:* The Red Badge of Courage. *Dickens:* Tale of Two Cities (C.E.)*; Pickwick Papers (C.E.)*; David Copperfield (C.E.)*; Nicholas Nickleby (C.E.)*. *Hughes:* Tom Brown's School Days (C.E.)*.

General Helps for the English Teacher

Bolenius: The Teaching of Oral Composition (Lippincott).

Dudley: The Study of Literature (Houghton).

Hanford, Fries, and Steeves: The Teaching of Literature (Silver).

Hilson: Illustrative Materials for High School Literature (H. W. Wilson).

Leonard: Essential Principles of Teaching Reading and Literature (Lippincott).

Miller: Creative Learning and Teaching (Scribners).

Morrison: The Practice of Teaching in the Secondary School (University of Chicago Press).

Rickert: New Methods for the Study of Literature (University of Chicago Press).

Ward: What Is English? (Scott.)

Woodring: The Enriched Teaching of English (Bureau of Publications, Teachers' College).

THE SOCIAL SCIENCES

OBJECTIVES

The ultimate aim of education is social efficiency. For purposes of clearness and definiteness, social efficiency has been divided by educators into several phases as follows:

1. Vital or health efficiency.
2. Civic or citizenship efficiency.
3. Vocational efficiency.
4. Avocational or leisure efficiency.
5. Moral efficiency.

These are the objectives of modern education. The social studies relate themselves directly to each of the objectives mentioned above and have as their ultimate aim the social efficiency of the individual. They are designed to present a body of knowledge, inculcate certain habits or attitudes, and develop certain appreciations. These may be itemized as follows:

1. Present facts which are of use to children (later adults) in explaining and interpreting conditions of life about them:
   a. How these became what they are.
   b. How they are controlled and directed.
   c. How they may be most useful.
2. Afford contact with the insistent problems of today.
3. Train the pupil to reason from facts and to form conclusions based on them so as to make meaning or mode of operation clear.
4. Inculcate the habit of acting on well-reasoned conclusions and making correct social responses.
5. Train in correct habits of study.
6. Aid in fitting the pupil for a wise use of leisure time.
7. Help equip the individual for earning a livelihood.
8. Inculcate patriotism.
9. Provide a foundation for thinking in terms of world events.

METHODS

The Recitation

The methods used should be in so far as possible the topical and project methods. Practical type projects that the teacher can use and get ideas from, as to how to organize others, can be found in McMurray, C. A. "How to Organize the Curriculum," 1924, Macmillan. Valuable information on the problem method may also be found in Tryon: "The Teaching of History in Junior and Senior High Schools." Chs. 4 and 5, Ginn & Co.

It is urged that teachers make a definite written lesson plan for each day's work embodying the following points:

1. Assignment.
2. Aim
3. Procedure.
4. Results.

Good results will be obtained when the teacher begins each day's recitation with a short written quiz on the previous day's work. This should not consume more than ten minutes of a forty-five minute recitation. The short quiz should be followed by the work or recitation on the assignment for the day and the period should be closed with a brief summary of what the assignment has contributed to the general topic or problem. This plan arouses interest on the part of the pupil and gives the teacher a definite basis for grading. It gives a feeling of definiteness and assurance to both pupils and teacher.

The Unit Method

The purpose of the unit method of teaching is to develop in pupils habits of thoroughness and accuracy by both requiring and providing an opportunity for them to master the materials which they study. This gives them a greater degree of understanding than is usually secured by the conventional daily recitation procedure.

The materials for a course in history should be organized around from eight to twelve broad units, each of which corresponds to some important historical movement. These units should represent bodies of worthwhile information and principles essential to a full comprehension of the course. The broad units should be further sub-divided into topics necessary for an understanding of it, and these made the basis for assignment and study. For each topic there should be a guide sheet containing the following items: An outline which each pupil is required to master; a list of references bearing on the topic adapted to the different levels of interest and ability; questions and problems which will aid the pupils in mastering the topic; and a list of supplementary projects for the brighter pupils.

The mastery technique, consisting of the five following steps: Exploration, presentation, assimilation, organization, and recitation is employed in each unit.

At the beginning of a unit comes the exploration period during which the teacher questions the pupils before they have made any formal preparation in order to find out what they already know about the subject. This period serves the double purpose of giving the teacher a foundation on which to build and of motivating the work of the unit.

In the presentation step the teacher gives the pupils a short introductory lecture in which he sketches the whole unit in a bold outline, bringing out the forces which have produced the main theme of the unit, a running narrative of its development, and finally its historical significance. This step is also given without preparation. By testing the teacher determines whether the pupil has mastered the presentation. If he passes the test satisfactorily he is allowed to proceed to the next step, if not the presentation is repeated. The purposes of the presentation are to prepare him for the intensive study of the unit which follows, and to further stimulate and arouse interest.

With the assimilative period the intensive study of the unit begins. For each topic there is a short exploration and presentation, but most of the time is spent in assimilating the materials bearing on the topic. During this part the classroom becomes a laboratory with all the reference books and other materials accessible to the pupils, and the super-

vised study technique is employed. Practically all of the intensive studying should be done in the classroom under the supervision of the teacher. There is no formal reciting during the assimilation period but by frequent tests and questioning the teacher determines the progress of pupils, and as soon as each has mastered the minimum essentials required of all he is allowed to proceed to the next step.

Without the aid of books, guide sheets or any outside material the pupil next prepares an organization outline of the topic. This serves as the final test of whether he has mastered the topic, and if it is unsatisfactory he makes further preparation and rewrites it. The pupils who complete this exercise first are allowed to work on the supplementary projects until the other members of the class have completed.

Finally comes the recitation period in which the pupils are given an opportunity to present orally the material which they have mastered in a series of floor talks, discussions, debates and reports.

Upon the completion of all the topics in a broad unit the pupils have it fully organized and next should have a review recitation in which the topics are linked together.

Before attempting to teach by the method described above the teacher should make a thorough study of the entire technique, and be sure that the necessary equipment is available. The following references will be helpful: Morrison, H. C., *The Practice of Teaching in the Secondary School;* Kelty, Mary G., *Teaching American History; The Denver Course of Study in the Social Studies for Junior and Senior High Schools;* Bailey, *Guide Sheets in American History;* Wilson, H. E., *Laboratory Manual in American History,* and King, A. K., "Teaching History by Units," *The High School Journal,* XII, Nos. 3 and 4.

How to Study

In all social study courses definite instruction in how to study should be given. There are various helps along this line. The following suggestions have been found helpful:

A. 1. Have a definite time and place to study. 2. Study with a notebook and pencil at hand. 3. Read the lesson assigned for the day in the textbook including all notes and fine print. 4. List in your notebook all of the unfamiliar words, allusions or expressions; later look these up. 5. Study the maps available for places mentioned in the assignment. 6. Outline in your notebook the entire assignment putting in sub-divisions to show relations. This may best be done by reading a paragraph and asking yourself, "How is this paragraph related to the chapter heading?" 7. Study the text by your outline and then practice telling it to yourself. Remember that you will be called upon to recite or to let others know what you know. Therefore the practice of "telling" your lesson to yourself is most important. 8. If possible consult some text or reference book other than the one used for class work for additional information or different methods of presentation.

B. A knowledge of the mechanical features of a book is essential. Skill in the use of the index, table of contents and other mechanical aids should be *developed.*

Notebooks

Notebook work in history should not be too formal. The notebook should be kept primarily as an aid for the pupil. In the beginning note taking may be a coöperative effort between teacher and pupil until the pupil has learned how to outline. He should be encouraged to jot down assignments, points to be looked up, outlines, important things to remember, etc., in his notebook. It should be regarded as an aid for the pupil and not an object for display in school exhibits. Neatness should be required, but the painstaking copying of notes has little value.

Current Events

Current events should be studied in connection with all courses in the social studies. History is in the making now as much as at any time in the past and the fact should be emphasized. Current event study is the best means of showing this. Current events should be studied for themselves too. Valuable papers for this work are suggested in this outline under "Aids." Pupils should be urged to file for reference their copies of whatever papers they use.

Term Papers

Term papers are of distinct value in the social studies. In the first two years short reports given frequently are desirable. In the last two years a long paper written on some phase of the work of the course is required by many teachers. Detailed directions for teaching pupils how to prepare a term paper may be found in Tryon "The Teaching of History in Junior and Senior High Schools." Ch. 7, Ginn & Co.

Library Work

Teachers of the social studies should make an effort to build up a labrary of their subject matter and should train their pupils in doing effective library work. This training should include familiarity with library indices, card catalogs, atlases, encyclopedias, dictionaries, and reader's guide. Lists of excellent reference books may be found in most of the texts.

Suggested references for the selection of books:

"American Library Association Booklist."

"American Library Association Catalogue."

"Standard Catalogue for High School Libraries." Wilson.

"Books for Historical Reading in School." McKinley Publishing Co.

Logasa, H. "Historical Fiction Suitable for Junior and Senior High Schools." McKinley Publishing Co.

Redman, A. "Classical Catalogue of Text Books in the Social Studies for Elementary and Secondary Schools." McKinley Publishing Co.

"North Carolina List of Books for High School Libraries."

Use of Reference Books

There are two reasons that justify the use of reference books: First, to teach the student that in order to get a full and accurate knowledge of any historical topic it is necessary to get the viewpoint of authors other than the one who has written the basal text; secondly, to teach the student how to handle books. To accomplish these results it is necessary for the teacher to be very familiar with the references assigned. Moreover, he should be very specific in his assignment: the subject to be looked for should be clearly stated, and the title of the book with the pages should be indicated. Each member of the class should clearly understand that the report which is being made is not for the benefit of the reporter alone but for the entire class as well. The whole class should be held responsible for each report made.

Dramatization

Dramatization may be used when it is believed that the subject under treatment may be made clear and interesting by its employment. It will be necessary for the teacher to inform himself thoroughly and give assistance to the students who are to take part in the play. Such subjects as "Naturalization of Foreigners," "How Our Laws Are Made," and "Court Procedure" may become interesting when presented in this manner.

McPheters, G., Cleveland, G., and Jones, S.—"Citizenship Dramatized," Henry Holt & Co., gives excellent suggestions.

Tests and Examinations

One of the outstanding contributions of Educational Psychology in recent years is the objective method of testing the results of teaching. Standard tests for nearly every subject have been devised and others are in the making. Along with these tests have come the new type of tests and examinations, namely: the true-false statements, sentence completion, matching, etc.

It is hardly necessary to justify this new style of examinations, but it is important that it should be used in connection with the teaching of the Social Sciences. Nevertheless, it is advisable to use the essay type question in part of the examinations.

The best results can be obtained by mimeographing all questions. However, it is not at all impracticable to use the new type without the mimeograph.

It has been suggested elsewhere that many lessons should be begun with a written review of the last lesson. The new type of questions is suggested as a quick and satisfactory way in which to conduct these reviews.

Excellent suggestions for tests will be found in:

Gibbons, A.—"Tests in the Social Studies." Complete bibliography of standard tests. McKinley Publishing Co., 1929. $1.00.

Johnson, H.—"Teaching of History." Chapter XVI. Macmillan Co.

Stormenz—"American History Teaching and Testing." Macmillan Co.

COMMUNITY CIVICS AND NORTH CAROLINA HISTORY

First Year

FIRST SEMESTER

A book review of that excellent biography, The Americanization of Edward Bok, asks: "Who is the real American, the boy born of a long line of American parents who counts on this fact alone to give him privilege in this country, or the boy of foreign parentage, who frankly accepts this country as a land of opportunity and relies on his initiative and integrity for success?" Are we the guardians of America merely because we got here first? Some times we wonder if America, as the land of opportunity, should not be superseded by America as the land of responsibility. We wonder not because we want American life to become a more strenuous life, but because the truest patriotism hopes and even demands that America not merely accomplish, but that she may create, and create something that may be lasting and valuable to all, but that is definitely marked American.

Do our boys and girls grasp the full significance of the American heritage? Is there distinct American spirit? These questions the course in Community Civics should answer affirimatively. It will answer them affirmatively if the administration of the school can give the pupils an opportunity to take an active part in their school life. The social attitude, the American attitude, should, of course, be the special aim for the teacher of social studies; it should be more—it should be the aim of the school, it should be the characteristic of American schools—fair play, tolerance, service and coöperation are ideals to be emphasized and developed because Community Civics deals with the relation of groups to each other. It helps the boys and girls to know their community, what it does for them, and what they may do for it. Community means more than the village, or town, or neighborhood. It may be a city, a county, a state, a nation.

Since a place in the social studies has been provided for a study of vocations, and of the more definite economic problems in Commercial Geography and problems in democracy, the elements of welfare study will include: (1) Health, (2) protection of life and property, (3) recreation, (4) education, (5) civic beauty, (6) migration, (7) charities, (8) correction.

Whatever text may be used certain topics should be studied. These should be as follows:

1. The home; 2. The school; 3. The church; 4. The community; 5. The nation; 6. Health; 7. Security; 8. Beauty; 9. Convenience; 10. Comfort; 11. Coöperation; 12. Description of industry; 13. Vocations; 14. Elements necessary for success in life; 15. Natural resources; 16. Conservation; 17. Labor and capital; 18. Big business; (a) Trust; (b) Coöperation; 19. The relation of government to business; 20. Money and banking; 21. Foreign trade; 22. Needs and forms of government; 23. Government; (a) Local; (b) State; (c) National; 24. Political parties; 25. Taxation; 26. A citizen's rights and duties.

This subject may be approached from another standpoint.

The following is a suggestive list of topics which may be adapted to the use of varying texts:

I. How England began representative government:
   A. Review of story of growth of democracy gained in grammar school, "European Background of American History." Include such topics as:
      1. Magna Carta.
      2. Bill of Rights.
      3. Petition of Right.
      4. Revolution of 1688.
      5. Reform bill of 1832.
      6. Reform bill of 1864.
      7. Reform bill of 1884.
      8. Reform bill of 1911, 1915.

II. Life today and two hundred years ago:
   A. How the Industrial Revolution changed our life:
      1. Interdependence:
         a. Of one worker on others.
         b. Of one city on others.
         c. Of one nation on others.
         d. Growth of cities.

III. Why we have governments:
   A. Needs.
   B. Forms.

IV. American ideals in government:
   A. Declaration of Independence—ideals—equal rights for all—special privileges for none:
      1. Independence.
   B. Civil and religious liberty.
   C. Rule of majority.
   D. Universal education.
   E. Union.
   F. Freedom of the seas.
   G. Monroe Doctrine.
   H. The Open Door.

V. Our National Government:
   A. As set up by the Constitution.
   B. Political parties and elections:
      1. Who is a citizen? Who may become one? How?
      2. Who may be a voter?
      3. Kinds of ballots.
      4. Our parties.
      5. Nominations.
      6. Campaigns.
      7. Elections.
      8. Initiative—Referendum—Recall.
   C. The President and his Cabinet:
      1. The electoral college.
      2. Compared with English cabinet.
      3. Work of cabinet.

D. How our laws are made:
   1. Congress:
      a. Origin.
      b. Powers.
   2. Committee system.
   3. Process of law-making.

E. Our courts:
   1. How a court is organized.
   2. Kinds.

Up to E the course has been similar in method to the usual class. The purpose has been to instill and recall American ideals. From here on the pupil is to be introduced more and more to the scientific social method of inquiry and suspended judgment, discussion and active participation. Perhaps there will be some criticism of the delay in taking up this method of study. The reasons for the plan are:

1. It builds into the pupils former experience.
2. In all judging, understanding and measuring one must have standards.

Instead of history stories, poems, orations, and immortal documents, ballots, charts, maps, diagrams, visits, and questionnaires become the tools. To resume:

F. Taxes:
   1. Kinds.
   2. Budgets.
   3. The tariff.
   4. Income taxes.
   5. Tax reforms.

G. Interesting features of United States Government:
   1. Unwritten laws.
   2. Amendments to Constitution.
   3. Territories, colonies, protectorates.
   4. District of Columbia.
   5. Impeachment.

VI. Our state government:
   A. Our state and federal governments compared.
   B. Our state officers: Names and careers.
   C. Our state courts:
      1. Follow a civil case proceedings.
      2. Follow a criminal case proceedings.

VII. Subdivisions of state:
   A. Counties.
   B. Towns and townships.

VIII. Cities:
   A. Formation.
   B. Government:
      1. Kinds.
      2. Recent reforms.

C. Planning of cities.
D. Water supply.
E. Lighting.
F. Cleaning.
G. Civic beauty.
H. Safety.

The next topics take up our greatest civic problems. Special attention in the following should be given to development of responsibility, and good judgment in exercise of that responsibility.

IX. Health:
A. Importance.
B. Why we must work together to secure it:
1. Health work in Panama.
2. Health work in Cuba.
3. Health work in Philippines.
4. Agencies. (See page 22, Bulletin 23, U. S. Bureau of Education.)
C. Improvement in homes:
1. Slums.
2. Home-owning.

X. Thrift.

XI. Protection of life and property:
1. Discussion of accidents, fires, floods, injuries.
2. Agencies. (See page 25, Bulletin 23, U. S. Bureau of Education.)

XII. Recreation:
A. Necessity.
B. Provisions for.
C. Playgrounds.
D. Parks:
1. National.
2. City.
E. Libraries.
F. Athletics:
1. Amateur.
2. Professional.
G. Clubs.
H. Theaters.
I. Museums and art galleries.
J. American life as a game.
K. Summer camps.
L. Forms.

XIII. Education:
A. Purpose.
B. How it tries to fill purpose.
C. Public education:
1. Why.
2. Comparison with Europe.
D. Importance in a democracy.

XIV. Immigration and Americanization:
- A. Where did we come from?
- B. Why do they come?
- C. Where do they go?
- D. How do they affect our country?
- E. Americanization.
- F. The yellow man.
- G. The Negro.
- H. The Indian.

XV. The rural problem:
- A. Importance of the country.
- B. Unfavorable conditions:
  - 1. How to improve them by:
    - a. Roads.
    - b. Schools.
    - c. Better farming methods.
    - d. Recreation.
    - e. Better business methods; coöperative marketing.

XVI. Conservation:
- A. Importance.
- B. A national problem.
- C. Methods.

XVII. Social legislation:
- A. Regulation of business.
- B. Factory laws.
- C. Compulsory school attendance.

XVIII. Correction:
- A. Development of ideas concerning treatment of offenders through stages of:
  - 1. Revenge.
  - 2. Punishment.
  - 3. Correction.
  - 4. Prevention.
- B. Causes of crime.
- C. Treatment of crime.
- D. Juvenile courts.
- E. Settlement work.
- F. Prohibition.

XIX. Charities:
- A. Causes of dependency.
- B. State charities:
  - 1. Poor relief.
  - 2. Feeble-minded.
  - 3. Insane.
- C. Private charities:
  - 1. United or Associated Charities.

If the class has done its work well there should at least be begun a collection of materials, such as laws and ordinances, reports and documents, maps, specimen forms, plans, models, pictures, charts, graphs. Exhibits may be held that will focus civic attention.

TYPE LESSON PLANS

A. The Open Door.
B. City governments.

Lesson Plan for three lessons on the Open Door.

Purpose: To give the pupils an idea of America's interest in the Orient and of the principles that guide her.

ASSIGNMENT

I. Philippines:

Problem: What kind of Nation did we prove ourselves to be in the Spanish-American War, and what follows?

A. Why did we become interested in the Philippines?
B. How did we secure control of them?
C. What kind of islands are they; situation, industries, people?
D. What is our policy toward the Philippines?

Special Topics (Three minutes. Speak from notes): The *Maine;* The Rough Riders; Dewey at Manila; Battle of Santiago; Aguinaldo; Government of the Philippines under Wm. H. Taft.

II. China and the Open Door. (Two lessons.)

Problem: Why is China an opportunity and a problem?

A. Why did interest in the Philippines lead to interest in China?
B. Why is America interested in foreign trade? What opportunity does China offer?
C. Describe China's early greatness, her decline. Explain.
D. Describe China.
    1. Country.
    2. Minerals.
    3. People.
    4. Government.
E. What are spheres of influence? Who has them in China? Where?
F. Why did John Hay promulgate an Open Door policy? What are the two principles of that policy?
G. Is it an American policy?
H. Was the Open Door policy put into operation during and after the World War? During the Washington Conference?

On an outline map of the world color China one color and the Philippines another.

PROCEDURE

I. Review the traditional foreign policy of America and find why this seeming violation occurred in the Spanish-American War. Stress the contradictions of the American policy that Spain in her conduct toward her colonies showed. Bring out our developing commercial interests. Next take up the special topics. Ask the class what imperialism is. Take up

the last special topic. From this topic and the information the pupils have secured, discuss why America has not given up the Philippines. Bring out (1) Question of ability of Philippines to govern themselves; (2) Importance of their trade; (3) Strategic position in Far East.

II. With the maps on the desk ask the children to locate Russia and Japan and the possessions of England and France. Next, take up the questions in I in order. End the lesson with a general discussion of the problem: "Why is China an opportunity and a problem?"

References

Philippines: *World Book*, Volume 6, pp. 4630-4638; *New International Encyclopedia;* Muzzey, *An American History*, pp. 451-462; West, *History of American People*, pp. 633-640; Beard and Bagley, *History of American People*, pp. 543-551; Burnham, *Making of Our Country*, pp. 551-563.

China and the Open Door: *World Book; International Encyclopedia;* Beard and Bagley, pp. 551-554; Muzzey, p. 563; West, pp. 640-644; Burnham, pp. 563-565; Poe, *Where Half the World is Waking Up*, pp. 78-93, 132-153; *Recent History of United States*, pp. 283-285; *Little Journeys Into China; Literary Digest*, Special China number.

LESSONS ON CITY GOVERNMENT

Purpose: To compare the three forms of city government as to efficiency.

Assignment—First Lesson

A. What seems to you to be the best plan for city government?
B. What does our town use?
C. Bring in three diagrams showing:
    1. Common plan of city government.
    2. Commission plan.
    3. City manager.

Be able to tell how each is developed. How did the misfortune of Galveston and Dayton help bring about better city government?

Assignment—Second Lesson

Debate: *Resolved*, That the city manager plan of city government is better than the commission plan. (Have a town speaker as one of the judges. Arrange with him to speak on: "The Government of Our Town." Be careful to select a man who will speak impartially.)

Note. Valuable suggestions for lesson plans can be secured from the United States Bureau of Education and from the introduction in Dunn's "The Community and the Citizen."

References

For the Pupil: Hughes, *Community Civics*, pp. 261-267; Woodburn and Moran, *The Citizen and the Republic;* Zueblin, *Municipal Progress*, pp. 376-394; Nida, *City, State and Nation*, pp. 190-209; Ames and Eldred, *Community Civics*, pp. 255-264; Beard and Bagley, *American Citizenship*, pp. 130-138; Dennis, *Community and Citizen*, pp. 229-240.

For the Teacher: United States Bureau of Education: (1) Tigert, *Teaching of Civics*, (2) *Teaching of Community Civics*, bulletin 23; Hill,

Teaching of Civics; Civic Educational Series, 1, 2, 4, 8; Kendall and Myrick, *How to Teach Fundamental Subjects.*

For the Pupil and Teacher: Parsons, *Fair Play;* Woodburn and Moran, *The Citizen and the Republic;* Dunn, *Community and the Citizens;* Hughes, *Commercial Civics;* McCarthy, Swan, McMullin, *An Elementary Civics;* Zueblin, *Municipal Progress;* Turkington, *My Country.*

Other material: Magazines—*The Survey*, 105 E. 22nd Street, New York, $2.00. *Literary Digest*, 354 4th Avenue, New York, $3.00. *The American City*, 87 Nassau Street, New York, $2.00. Local Newspapers—State Year Books.

Maps: Especially state and local (pupils enjoy making maps of their town or city, or country).

Pictures and lantern slides, charts and graphs.

Specimen forms, license receipts, petitions, ballots, naturalization papers.

Laws and ordinances.

Visits: A visit to a civil court and the jail will produce much valuable discussion.

SECOND SEMESTER

The last eighteen weeks, or the second term of the work for the eighth grade may be given to Vocational Civics—a new and very important study for high schools. It is possible to give vocational instruction and guidance in connection with the other subjects of study in the curriculum. English especially lends itself to this arrangement. Some schools, most notable of which is Grand Rapids, Michigan, follow this plan. Notwithstanding the success of this plan in Grand Rapids, there is still a great need for definite vocational civics. It should not be subordinated to any other subject in the curriculum because it fills an evident need.

The purpose of Vocational Civics is two-fold:

1. To give an understanding of the fundamental structure of our economic life and develop valuable civic and social ideals, such as fair play, team spirit, fraternity, sympathy and liberty.

2. To give information concerning the vocations of the United States and the immediate community that will help pupils to become happy workers in the world.

In our never-ending attempt to so shape our schools that they meet the needs of our democracy we are coming to a realization of the part vocation plays in life. Especially during the Junior High School period is the desire a growing one, with infinite possibilities for good, and just as infinite possibilities for folly, because if the school does not fulfill this need, the boys and the girls will appropriate other things to fill it. Public education, "a deliberate attempt on the part of the State to mold human beings," to take each his own place in the democracy, is beginning to realize that the composite effect of vocation and fitness in vocation is tremendous. And yet most of our pupils go out of our schools with an appalling lack of conception of our economic life, the phase of life in which we Americans can truly claim distinction, a phase of life that is vital to every one, and that claims the best energies of our lives. For

the happiness of the worker, for the soundness of democracy, vocational inspiration and guidance is necessary.

We must remember that a decision for a vocation is vital and generally progressive. For example, one boy has already passed through the circus, the policeman and the street car conductor steps in his choice of a vocation and is now very much interested in the pitcher! The purpose of the course in vocational civics is not to decide on a vocation for every pupil. The greatest danger in the vocational guidance movement is that it may become paternalistic and hasty. Let the emphasis be put on the last word in the term vocational guidance. Let the last decision be the pupil's when it comes.

Teeter, Verl—"*A Syllabus on Vocational Guidance*" (Macmillan), is a valuable aid in the study of vocations. It contains excellent outlines, suggestion and bibliographies.

There are very good textbooks that enable us to realize our second purpose in giving the course, such as Giles's *Vocational Civics*, and Gowin and Wheatley *Occupations*. There has not come to our notice any single text that will enable us to accomplish both purposes. The following may be used:

Leavitt and Brown's *Elementary Social Science.*

Macmillan's or Adams's *Description of Industry.*

Henry Holt's and Giles's *Vocational Civics.*

Wherever possible each pupil should buy both, but it may be more practicable to require the pupils to buy one or the other of the two, and buy several copies of the other, say, one-fourth as many as there are pupils, and put them in the library or on a shelf in the room with other references and material. Diagrams, charts, scrap-books, and visits to study local industries help here.

The following are suggestive lists of topics. They may be used variously. If the pupils buy Giles's *Vocational Civics*, topics under I will be especially valuable. If they buy Leavitt and Brown's *Elementary Social Science,* II will be helpful in guiding the later work.

I

A. What work is and why we work.
B. How the industrial revolution changed our business life.
C. Factors of production.
D. Money.
E. Credit.
F. Distribution.
G. Unemployment:
    1. Causes.
    2. Significance.
    3. How to get a job.
H. Government and industry.
I. Industries that have been and are very important in the United States:
    1. Agriculture:
        a. In the Colonial period.
        b. The new agriculture.

2. Shipbuilding:
   a. Early conditions favorable to shipbuilding.
   b. Our commerce today:
      a. Our merchant marine.
      b. Promising field for our commerce; South America; The Orient.
3. Manufacturing:
   a. Growth.
4. Transportation:
   a. Part in development of our country.
   b. Our railroads.
   c. Our water transportation.
5. Meat industries:
   a. Extent.
   b. How carried on.
   c. Our great meat-packing industries.
6. Mining:
   a. Extent of our minerals.
   b. Coal mining.
   c. Our oil fields:
      a. Standard Oil Company.
7. Banking:
   a. Services.
   b. Bank and the farmer.
8. New occupations.

It will be well to end the course with a study of the local occupations. This will give an excellent opportunity for a concrete expression in pupil activity that ought to clinch the thing for the pupil. It might take the form of a booklet on the town's industries, with pictures, etc., statistics and information. It might be an exhibit. It might take the form of a public program.

A phase of vocational work that must not be omitted here is testing. Intelligence and vocational tests in our high school work are still in a decidedly experimental stage, and for that reason are all the more interesting to the live teacher. With the development of our social studies program they will undoubtedly take an important place. If the teacher feels that there is between the teacher and the pupils a spirit of frankness and comradeship these tests could be used to determine the interests and needs of the pupils, and valuable information for school records can be secured.

The following is a suggested test that will help in both ways:

1. What kinds of work have you done?
2. For which work have you received pay?
3. What kinds of work do you best like to do?
4. Why do you like them?
5. Which school studies do you like best?
6. What do you like about them?
7. Name in the order of your present preference three occupations you are considering.

8. Why are you considering these occupations?
9. Have you definitely decided on the occupation you named first?
10. How do you intend to prepare for any of these occupations?

It should be borne in mind in using tests that the fundamental purpose of the course is to add to the intelligence and ideals of the pupils so that they may choose, but not necessarily during the time of the course. Avoid any haste in choosing. Let the foundations upon which the choice rests be sure and firm. Parsons's *Choosing a Vocation* will be found especially interesting to the teacher.

The course is a difficult one to teach, but a most interesting one. There are possibilities in it for performing a really great service. The current magazines and newspapers often offer very valuable material. There is a mass of material at hand. Our work is not to find material but to select and classify. Let the following principles guide in the elaboration of the course:

1. Develop in the pupil the habit of questioning and inquiring.
2. Let him realize that he has an important place to fill in our economic life.

BIBLIOGRAPHY

For the Teacher:

Material for the Class in Occupations. Bureau of Vocational Guidance—Graduate School of Education—Harvard University.
Aims and Methods of Vocational Guidance—Editorial Review, June, 1921, Volume 62.
Parsons—*Choosing a Vocation.*
Brewer—*The Vocational Guidance Movement.*
Davis—*Vocational and Moral Guidance.*
Hill—*Introduction to Vocational Education.*
Vocational Guidance Through the Life Career Class.
Bloomfield—*Readings in Vocational Guidance.*
Bloomfield—*Youth, School and Vocation.*
United States Department of Labor—*Descriptions of Occupations.*
Stanford University of California, Bulletin No. 19—*Vocational Information.*
(N. E. A.)—*Vocational Guidance in Secondary Education.*

For the Pupils:

Gowin and Wheatley—*Occupations.*
Filene—*Careers for Women.*
Rollins—*What Can a Young Man Do?*
Hourle and Saltzberg—*The Girl and the Job.*
Laselle and Wiley—*Vocation for Girls.*
Leavitt and Brown—*Elementary Social Science.*
Weaver and Byler—*Profitable Vocations for Boys.*

The following are valuable for illustrative material:

Norris—*Heroes of Progress.*
Bok—*Americanization of Edward Bok.*
Riis—*Making of an American.*
Thayer—*Theodore Roosevelt.*

Keller—*Story of My Life.*
Life of Alice Freeman Palmer.
Center—*Worker and His Work.*
Smith—*Your Biggest Job—School or Business.*
Bogart-Flanagan—*Economic History of United States.*
Rochleau—*Great American Industries Series:*

1. Minerals.
2. Products of the soil.
3. Manufacturers.
4. Transportation.

Herbertson—*Man and His Work.*
Gowin and Wheatley—*Occupations.*
Allen—*Advertising as a Vocation.*
J. H. Hammond—*The Engineer.*
Allen—*Law as a Vocation.*

Other Books for the Pupils:

F. J. Allen: Advertising as a Vocation. *J. H. Hammond:* The Engineer. *F. J. Allen:* The Law as a Vocation. *D. W.* and *E. W. Weaver:* Medicine as a Profession. *Douglas:* Merchandising. *Rev. C. L. Slattery:* The Ministry. *A. Seruster:* Opportunities in Aviation. *Ellwood Hendrick:* Opportunities in Chemistry. *Charles M. Horton:* Opportunities in Engineering. *O. D. Dean:* Opportunities in Farming. *Nelson Collins:* Opportunities in Merchant Ships. *J. J. Lee:* Opportunities in Newspaper Work. *E. J. Kilduff:* The Private Secretary. *William Maxwell:* Salesmanship. *Richard C. Cabot:* Social Work; Training and the Rewards of the Physician. *W. M. Horner:* Training for a Life Insurance Agent. *J. H. Fuedel:* Training for Librarianship. *C. B. Fairchild, Jr.:* Training for the Electric Railway Business. *Don C. Seitz:* Training for the Newspaper Trade. *Gifford Pinchot:* Training of a Forester. *T. G. Soares:* The Y. M. C. A. Secretaryship. *H. P. Wright:* The Young Man and Teaching. *S. E. Baldwin:* The Young Man and the Law. *F. J. Allen:* The Business Employments. *G. J. Thwing:* The Training of Men for the World's Future. *N. C. Fowler, Jr.:* Starting in Life. *Appleton:* Training Series. *Harper and Brothers:* Opportunity Series. *Lippincott:* Training Series; Farm Manuals. *Macmillan:* Vocation Series. *Scribner:* Vocational Guidance Series.

NORTH CAROLINA HISTORY

For some time there has been a feeling on the part of a number of people that North Carolina History should be taught in the high schools. Governor A. W. McLean was very much interested in this matter and appointed a committee to work out a plan for teaching the Geography and History of North Carolina, not only in the elementary school but also in the high school, in order that boys and girls may have the sort of information which will increase appreciation of their native state.

The History of North Carolina can be taught in the first year of high school as soon as a suitable textbook is made available. This subject can be taught as a part of History I, which would include Civics (first semester) and North Carolina History (second semester).

It will be necessary to provide a suitable textbook before North Carolina History can be taught satisfactorily. Ashe's History of North Carolina, The History of North Carolina by Connor, Boyd and Hamilton, and Hamilton and Boyd's Syllabus of North Carolina History are out of print, and therefore, not available if they were usable.

There are certain materials which would serve good purpose in supplementing a textbook, such as Arthur's Western North Carolina, Allen's History of Halifax County, Boyd's History of Durham County, and certain other county histories. There are such publications as Ashe's Biographical History of North Carolina, The North Carolina Historical Review, Wheeler's Historical Sketches of North Carolina, Hill's History of North Carolina in the War Between the States, and the bulletin of the North Carolina Historical Commission, which would be very helpful.

It would be possible to adopt a North Carolina History for use in the session 1930-31, if a suitable textbook were available.

MODERN EUROPEAN HISTORY

Second Year

Under the plan of High School Reorganization, adopted particularly for high schools of three, four, five and six teachers, the second year's work in history, that is, the work of the ninth grade, will be devoted to Modern European History. This arrangement is suggested for two reasons:

1. Modern European History is the history which most of the high school students will need in their every-day reading.

2. So many pupils drop out of the high school during and after the first two years, the course in Modern History is given as being more valuable to such students than the Ancient and Mediæval course.

In the larger high schools with more teachers and more pupils there is no objection to following the order of sequence as follows: A year of Community Civics, a year of Ancient and Mediæval History, a year of Modern History, a year of United States History. A one-year course in World History is being offered in a number of schools. In the larger schools provision will be made in the fourth year, or eleventh grade, for problems in American Democracy, for Elementary Economics and Sociology.

Never before has European History been so important as it is at the present time. Problems and conditions in different countries, particularly the countries of Europe, are not only attractive, but of tremendous significance to other nations of the world. The changes which have taken place in the last half century have vitally affected the civilized world. Causes, events and effects of the World War are still vital topics of discussion.

In the study of Modern European History stress should be put upon great movements rather than upon minor historical changes. Emphasis should be placed on social and economic conditions and on social and economic changes as well as upon political changes and conditions. After a brief survey of the period from 1683 to 1789 and of the period from 1789 to 1849, major emphasis should be placed upon the period of Democracy and National Development from about 1850 to 1918.

The period from 1849 to 1871 may be called the period of National Unity among the nations of Europe and should be understood as furnishing a basis for understanding the events after that time. The parts played by France, Italy, and the Netherlands, Germany and Austria, Russia, and Great Britain, should be clearly developed. The period of expansion and international conflict will have to do particularly with the British Empire, the nations of the far East, China and Japan, particularly Africa and the near East, the great alliances and international conflicts preceding the World War.

It will be impossible to go into detail in tracing the campaigns of the World War, and indeed it is doubtful if such procedure is profitable. It is more profitable to understand the conditions out of which the War grew and the results of it with every possible emphasis upon the necessity of adopting means to prevent war.

The Modern Age begins with the Era of the Reformation and includes the time from the discovery of America in 1492 to the Peace of Westphalia in 1648. The discussion of the Modern Age will include the following:

Geographical Discoveries and the Beginning of Modern Colonization.
The Beginning of the Reformation.
Spain—Her Ascendancy and Relation to the Catholic Reaction.
The Tudors and the English Reformation.
The Revolt of the Netherlands, or the Rise of the Dutch Republic.
The Huguenot Wars in France.
The Thirty Years' War.

The era of the Political Revolution, or the period from the Peace of Westphalia in 1648, to the Treaty of Versailles in 1919. Included in this era are the following:

The Doctrine of the Divine Right of Kings.
France Under Louis XIV.
The Stuarts and the English Revolution.
Russia: Peter the Great.
Prussia: Frederick the Great.
England of the Eighteenth Century.
Austria: Joseph the II.
The French Revolution.
The Consulate and the Napoleonic Empire.
The Congress of Vienna.
France since the Second Restoration.
England from the Battle of Waterloo to the World War.
The Liberation and Unification of Italy.
The Making of the New German Empire.
Russia from the Congress of Vienna to the World War.
The New Industrialism.
The Expansion of England, France, Germany, Russia, and United States in the Nineteenth and early Twentieth Centuries.
Evolution toward World Federation.
The World War.

ANCIENT AND MEDIÆVAL HISTORY

Third Year

In the bulletin, High School Reorganization, provision is made for the teaching of Ancient and Mediæval History in the third year. This is the plan suggested for three-, four-, five- and six-teacher schools. In the larger schools, as already suggested, it will be permissible to follow a different sequence, though there is sound reason for teaching Modern History in the second year of high school and Ancient and Mediæval History in the third year.

I Ancient History

The course in Ancient History will include the topics and contents found in the State-adopted textbooks on this subject.

The following outline will indicate the general scope of the course:

1. The races and groups of peoples of prehistoric times.
2. The political history and civilization of each of the following nations: Egypt, Babylonia, Assyria, Chaldea, The Hebrews, Phœnicans, Hitties, Lydians, Persia, India, China.
3. Greece: The story of the land and the people, including the Greek accounts of prehistoric times; the Ægean civilization; the political and religious institutions of the Greeks, their mythology, language, art and literature.

Sparta: The Peloponnesian League.
The Age of Colonization and of Tyrannies.
Athens: The History of the Athenians.
Persia and the Persian Wars.
The Athenian Empire.
The Age of Pericles.
The Peloponnesian War; Spartan and Theban Supremacy.
The Greeks of Western Hellas.
The Macedonian Empire; Phillip II, and Alexander the Great.
The Græco-Oriental World from the death of Alexander to Conquest of Greece by the Romans.
Greek Literature, Sculpture and Painting.
Greek Literature, Philosophy and Science.
The Social Life of the Greeks.
The Story of Italy's Early Inhabitants.
The Kingdom of Rome.
The Roman Republic.
Rome as an Empire.
The Principate; The Absolute Monarchy.
The Decline and Fall of the Roman Empire.
The Social Life, Law, Architecture, Literature of the Romans.
The Transition Age, including the Barbarian Kingdoms, the Church and its Institutions, the Fusion of Latin and Teuton, the Roman Empire in the East, the Rise of Islam, Charlemagne.

II Mediæval History

The Ancient History course brings the story down to the time of Charlemagne. Mediæval History will include what is generally known as

the Dark Ages, or from the fall of Rome to the eleventh century. There will be an overlapping, therefore, of the Ancient and Mediæval accounts. This will serve as a basis for review and also for addition of new material. The period of the Dark Ages should include the following:

The Barbarian Kingdoms.
The Church and its Institutions.
Diffusion of Latin and Teuton.
The Roman Empire in the East.
The Rise of Islam; Charlemagne and the Restoration of the Empire in the West.
The Northmen, or the Coming of the Vikings.

The Age of Revival is the time from the opening of the eleventh century to the discovery of America by Columbus in 1492. Included in this period are the following:

Feudalism and Chivalry.
The Norman Conquest of England.
Papacy and the Empire.
The Crusaders.
The Supremacy of the Papacy and the story of the Decline of its Temporal Power.
Mongolian Conquests and Settlements.
Europe.
Growth of the towns.
The Universities and the School Men.
The Growth of England, France, Spain, Germany, Russia, Italy, and the Northern countries with the formation of National Governments and Literatures.

The following outline indicates the scope of the year's work considered as a whole:

1. Prehistoric Times; 2. The Ancient Orient; 3. Greece; 4. Rome; 5. The Middle Ages; a. The Germans; b. The Holy Roman Empire; c. The Northmen and the Normans; d. Feudalism; e. The Byzantine Empire; f. The Arabs and Islam; g. The Crusaders; h. The Mongolian Peoples in Europe to 1453; i. National States During the Middle Ages; 6. Mediæval Civilization.

WORLD HISTORY

(This course is designed for schools with more than six teachers.)

Second or Third Year

A number of high schools are finding it advisable to offer a one-year course in world history for ninth- and tenth-grade pupils. The curriculum is becoming so crowded that there is scarcely room for two years of European history on the program of most high school pupils. It is even possible for pupils to graduate from high school with only civics and American history. In many cases they take only one year of European history, either early European or modern European. Of the two the latter is undoubtedly of greater importance in explaining the present, but in order to understand it the pupils need a background in the former. Hence, where pupils have only one year to devote to history other than

civics and American their needs will probably be more adequately served by a one-year course in world history.

In a course of this kind the most important problem facing the teacher is that of selecting from the great mass of facts those of the most value for teaching purposes. The following guiding principles will help the teacher in overcoming this difficulty:

1. Select a few typical facts and conditions in each period and treat them in some detail.
2. In the ancient and mediæval periods the chief emphasis should be placed on contributions to the present.
3. Facts, conditions, and institutions common to many nations should be treated rather than attempting to trace the history of separate nations unless these nations have had a wide influence.
4. Recent history should receive relatively more stress than more remote history.
5. Chronology should become increasingly more important as the present is approached.
6. In modern history the origin of present day institutions should be stressed.
7. Individuals who have had a profound influence on history should be selected and treated in some detail.
8. Pupils should be given a correct perspective of the place of the United States in world history and of our debt to other nations.

A course in World History might be organized around the following outline:

I. Primitive and Oriental Life:
   - A. Early man.
   - B. Life in ancient Egypt.
   - C. The ancient civilization of Western Asia.
   - D. The ancient civilization of the Far East: China, India, and Japan.

II. Ancient Greece and Her Civilization:
   - A. The early history of Greece.
   - B. The conflict between Greece and Persia.
   - C. Greek life and culture in the Age of Pericles.
   - D. Alexander the Great and the spread of Greek culture.

III. Early Rome and the Roman Empire:
   - A. The early history of Rome and the Roman Republic.
   - B. The conquest of the Mediterranean World.
   - C. Internal strife and revolution.
   - D. The Roman Empire.
   - E. Contributions of the ancient world to modern times.

IV. Mediæval Life and Institutions:
- A. The Barbarian migrations.
- B. The empire of Charlemagne.
- C. The Feudal Age.
- D. Christianity in the Middle Ages.
- E. The Crusades.
- F. The civilization of the Middle Ages.

V. The Beginning of Modern Times:
- A. The Renaissance.
- B. The Age of Discovery.
- C. The Protestant Revolt and the Counter-Reformation.
- D. The Religious Wars.
- E. Life in the 17th century.

VI. Absolutism and the Struggle for Colonial Supremacy:
- A. The beginning of Parliamentary government in Great Britain.
- B. The Age of Louis XIV.
- C. Absolutism in Austria, Prussia, and Russia.
- D. Great Britain achieves colonial supremacy.

VII. The French Revolution:
- A. The background of the French Revolution.
- B. The French Revolution.
- C. Napoleon spreads the ideals of the French Revolution.

VIII. The Industrial Revolution:
- A. The inventors begin a revolution in English industry.
- B. The use of steam increases production.
- C. Capitalism and the factory system.
- D. The spread of the Industrial Revolution.

IX. Reaction, Revolution, and National Unification:
- A. The Age of Metternich.
- B. The Revolutions of 1848.
- C. The Second French Empire.
- D. The unification of Germany and Italy.

X. Democracy and International Rivalry:
- A. The governments and reforms of European nations.
- B. The British Empire.
- C. Rivalry in the Far East.
- D. The partition of Africa.
- E. The Balkan situation.
- F. European Alliances.

XI. The World War and the New Internationalism:
- A. The causes of the World War.
- B. The courses of the war to April, 1917.
- C. The United States in the World War.
- D. The Paris Conference and the League of Nations.
- E. Reconstruction.
- F. Recent efforts toward international peace.
- G. The World today.

REFERENCES

The following reference books will be found useful:

ANCIENT AND MEDIÆVAL HISTORY

Breasted—*Ancient Times.*
Davis—*A Day in Old Athens.*
Davis—*A Day in Old Rome.*
Davis—*Life on a Mediæval Barony.*
Davis—*Readings in Ancient History.* (2 vols.)
Emerson—*Introduction to the Middle Ages.*
Harding—*Story of the Middle Ages.*
Johnson—*Private Life of the Romans.*
Seebohn—*Era of the Protestant Revolution.*
Webster—*Readings in Mediæval and Modern History.*

MODERN HISTORY

Bowman—*The New World.*
Gibbons—*Europe Since 1918.*
Gibbons—*The New Map of Asia.*
Green—*A Short History of the English People.*
Hayes—*A Brief History of the Great War.*
Hayes—*A Political and Social History of Modern Europe.*
Matthew—*The French Revolution.*
Ogg—*Economic Development of Modern Europe.*
Osgood—*A History of Industry.*
Robinson and Beard—*Readings in Modern European History.*
Shepherd—*Historial Atlas.*
Sweet—*History of Latin America.*

BIOGRAPHY

Abbott—*Pericles.*
Bickwell—*Story of Antoinette.*
Bryce—*David Livingston.*
Eginhard—*Charlemagne.*
Fowler—*Cæsar.*
Hassell—*Louis XIV.*
Johnston—*Napoleon.*
Lodge—*Richelieu.*
Lowell—*Joan of Arc.*
Ludwig—*Bismarck.*
McCabe—*Abelard.*
Motley—*Life of Peter the Great.*
Roosevelt—*Cromwell.*
Southey—*The Life of Horatio Nelson.*
Strachey—*Queen Victoria.*
Tappan—*Alfred the Great.*
Tappan—*In the Days of Queen Elizabeth.*
Trevlyan—*Garibaldi and the Thousand.*
Wheeler—*Alexander the Great.*

AMERICAN HISTORY

Fourth Year

First and Second Semesters

In grade eleven the course is American History. Any text on the State list may be used. The course should start at the beginning of our history and extend down to the present time, with special emphasis upon our development since the Civil War. The preceding course in World History should give just the foundation needed for teaching our relation to other nations.

The chief motive here is the civic one. Hence emphasis should be upon American ideals and institutions. We must be positive in our instruction at this point and teach respect and enthusiasm for the foundation of our democracy. In our teaching of facts of battles, campaigns and heroes, we must not forget the larger principles that have made our Nation what it is: the spirit of liberty and the right to work out one's own destiny, bringing settlers to our shores, voicing its meaning in the Declaration of Independence, asserting it again in the struggle for commercial freedom in 1812, culminating in the emancipation of slaves, and still going on to show its presence in 1898 in the War with Spain, and again in 1917 in the World War. We must teach the safeguards of this liberty—representative government, trial by jury, no taxation without representation, freedom of speech, press, religion and public assembly, habeas corpus, the right of protest and of petition, etc., the rights guaranteed by our Constitution. It is not the framework of our history, the facts and dates that we wish to teach here. They have already been taught. Here rather we should give the soul to the framework, teach the spirit of American history and teach it so that in any time of danger, external or internal, these future citizens will rise to a man to defend any infringement of their free institutions and the rights guaranteed thereby.

Much emphasis should be placed upon the social and industrial development of the United States since 1870. Teach particularly the forces which make for the well-being of our people. Bogart's Economic History of the United States published by Longmans, Green & Co., New York, should be a close supplement to the text used for class work. The financial system of the United States should be studied in detail, from its beginning in the time of Alexander Hamilton down through its various changes to its present administration through the Federal Reserve System. A thorough study of banking, its services to the people, and the citizen's duty toward this institution should be made. An excellent book for reference here is Banking and Business Ethics, by Borden and Hooper, published by Rand, McNally & Co. This should be taught to every eleventh grade history pupil.

The subject of territorial expansion, the great westward movement, should receive careful emphasis; its meaning, its problems, and its results, should be brought out. Along with this should come two other topics closely bound up with this expansion, namely, the development of transportation and the subject of immigration. Before leaving these subjects, pupils should know the types of immigrants coming to our shores in the past and the types coming in now, the problems attending immigration,

and give an intelligent opinion as to whether immigration should be restricted or not, with reasons therefor. They should see the close relation between progress and the development of transportation and be alive to the possibilities of the future in this respect.

Our relations with other nations should be stressed particularly, yet we must be careful not to arouse unjustifiable prejudice for or against any particular nation. We must present truly and fairly objectives and motives in so far as possible with present knowledge. The growth of the United States as a world power should be traced up to its present unique position among the nations of the world. Pupils must understand that in entering the World War, America became a participant not merely to protect the lives and property of her citizens, but to prevent the substitution of autocratic institutions for free democratic ones. Pupils should get from this year's work the realization that America is the Nation of great destiny, that it holds this position because of its resources, its democratic institutions, and the integrity of its people, and that it is the part of each individual to "Carry On."

SUGGESTED OUTLINE

The following outline will indicate the scope of the year's work and the topics which should be emphasized:

1. The Great Migration to America; 2. Colonial Life; a. Agriculture; b. Industry; c. Commerce; d. Home; e. Church; f. School; g. Biography; h. Press; i. Relations with Indians and European Nationalities; j. Relations with the British Government; 3. Conflict and Independence; a. British Colonial system; b. Events leading up to the War; c. The American Revolution; d. The results of the war; 4. The U. S. under the Articles of Confederation; 5. Formation of the Constitution; 6. The rise of political parties; 7. The Jeffersonian Republicans in power; 8. The War of 1812; 9. The West and Jacksonian Democracy; 10. The Industrial Revolution; 11. Expansion; a. The Oregon territory; b. Texas; c. Mexican War and expansion to the Pacific; d. Gold in California; e. Utah; 12. The planting system and national politics; a. Slavery—North and South; b. Slavery in national politics; c. The drift of events towards the irrepressive conflict; 13. The Civil War and Reconstruction; 14. The Nation expands; a. The New South; b. The vanishing frontier; c. Public land problems; d. Immigration; e. The age of science and invention; 15. Domestic issues; a. The currency question; b. The protective tariff and taxation; c. The railways and trusts; d. Minor parties and unrest; e. The sound money battle of 1896; 16. America a World power; a. American foreign relations, 1865-1898; Monroe Doctrine Asserted; b. Spanish-American War; c. New possessions; d. The U. S. in the Orient; e. The Panama Canal; f. The U. S. in the Carribean; 17. The spirit of reform in America; a. Political; b. Economical; 18. The Woman Suffrage Movement; 19. Industrial Democracy; a. Rise and growth of organized labor; b. Relations between labor and capital; 20. President Wilson and the World War; 21. The Peace Settlement at Paris; 22. Effects of the War upon U. S.; 23. Policies of the U. S. since the World War.

SUGGESTED TOPICS

The following suggested topics contain problems for term papers. Many of these topics will furnish several problems.

1. Comparison between immigrants of today and colonial times; 2. Home life in colonial days; 3. The leadership of the churches in early America; 4. Life of any one of the following: a. Benjamin Franklin, b. George Washington, c. Thomas Jefferson, d. Alexander Hamilton, e. Andrew Jackson, f. John Marshall, g. Abraham Lincoln, h. Jefferson Davis, i. Robert E. Lee, j. Theodore Roosevelt, k. Frances Willard, l. Susan B. Anthony, m. William Jennings Bryan, n. Woodrow Wilson; 5. History of education in North Carolina; 6. The Lewis and Clark expedition; 7. The industrial revolution in the United States; 8. Jacksonian Democracy; 9. The Overland Trails; 10. The discovery of gold in California; 11. The steamboats; 12. The cotton gin and its effect; 13. The Abolition movement; 14. The negro before the Civil War; 15. The negro after the Civil War; 16. The causes of the Civil War; 17. Economic aspects of the Civil War; 18. North Carolina's War Governor; 19. Foreign relations during the Civil War; 20. Reconstruction in North Carolina; 21. The building of the transcontinental railroads; 22. The rise and growth of trusts in the United States; 23. Origin and growth of the Civil Service; 24. The development of the West; 25. American irrigation farming; 26. Conservation; 27. The Indian problem; 28. The American-Japanese problem; 29. The Granger movement; 30. Free silver and the campaign of 1896; 31. The United States and the Philippine Islands; 32. The Panama Canal; 33. The conservation of natural resources; 34. Recent political reforms in the United States; 35. The Woman Suffrage Movement; 36. The Federal Reserve System; 37. The rise of organized labor; 38. The League of Nations; 39. The World Court; 40. The Monroe Doctrine; 41. The development of national prohibition.

BIBLIOGRAPHY OF AMERICAN HISTORY

American Nation (ed. Hart).
Bassett—*Expansion and Reform.*
Channing—*History of the United States* (5 vols.).
Earle—*Home Life in Colonial Days.*
Elson—*History of the United States.*
Faulkner—*American Economic History.*
Fiske—*The Critical Period.*
Forman—*Sidelights on Our Social and Economic History.*
Hart—*American History Told by Contemporaries* (4 vols.).
Hart—*Formation of the Union.*
Lingley—*Since the Civil War.*
McMaster—*History of the People of the United States.*
Muzzey—*Readings in American History.*
Ogg—*Reign of Andrew Jackson.*
Old South Leaflets.
Parkman—*A Struggle for a Continent.*
Parkman—*Works.*
Paxson—*History of the American Frontier.*
Sparks—*Expansion of the American People.*
Thwaites—*The Colonies.*

Van Tyne—*American Revolution.*
Wells—*Industrial History of the United States.*
Wilson—*Division and Reunion.*
Yale Chronicles (50 vols.).
Bowers—*Jefferson and Hamilton.*
Bradford—*Lee, the American.*
Brady—*The True Andrew Jackson.*
Bruce—*Daniel Boone and the Wilderness Road.*
Dodd—*Jefferson Davis.*
Dodd—*Woodrow Wilson and His Work.*
Ford—*The Many Sided Franklin.*
Ford—*The True George Washington.*
Harper—*Life and Work of Susan B. Anthony.*
Meadowcroft—*Boy's Life of Edison.*
Morgan—*Patrick Henry.*
Nicolay—*Boy's Life of Grant.*
Ober—*Sir Walter Raleigh.*
Parkman—*Montcalm and Wolfe.*
Roosevelt—*Autobiography.*
Sandburg—*Abraham Lincoln.*
Thayer—*John Marshall.*
Washington—*Up From Slavery.*
Davis—*Boy's Life of Grover Cleveland.*
Bolton—*Famous Voyagers and Explorers.*
Bolton—*Girls Who Became Famous.*
Bradford—*Confederate Portraits.*
Bradford—*Portraits of American Women.*
Bradford—*Union Portraits.*
Dodd—*Statesmen of the Old South.*
Johnston—*Famous Indian Chiefs.*
Lodge and Roosevelt—*Heroes of American History.*
Morgan—*Our Presidents.*
Morris—*Heroes of Discovery in America.*
Odum—*Southern Pioneers.*
Sparks—*The Men Who Made the Nation.*

ADVANCED CIVICS, ELEMENTARY ECONOMICS, AND SOCIOLOGY

Fourth Year

In the fourth or last year of high school in the larger schools, there should be a course in the problems of American democracy. In order to help solve the problems of modern life we must systematically study them. These problems are civic, social and economic. Therefore the social study of this last year of high school should include principles of civics, sociology and economics. New books treating these phases of American life are coming out constantly. No class should be bound to one text. In this course the great factor is the teacher, who should be a person of great mental poise, clear perception and fair-mindedness. The matter of the textbook might be left to be determined from time to time according to the needs of the class.

Topics which might be studied in this course are:

1. The slums; 2. The sweating system; 3. Tenements; 4. Individual and social degeneracy; 5. Poverty; 6. The unemployed and homeless poor; 7. Dependent children; 8. Immigration; 9. The tramp problem; 10. Criminal classes; 11. Prison reform; 12. Institutions of charities and corrections; 13. The liquor problem; 14. The factory system; 15. Labor unions; 16. The organization of capital; 17. Social settlements; 18. Private and public charities; 19. Religious organizations; 20. The juvenile court; 21. Industrial education; 22. Private and public education; 23. Political parties; 24. Philanthropy; 25. The church; 26. Banking and its services.

We strongly recommend here that the class use *Banking and Business Ethics*, by Borden and Hooper, published by Rand, McNally & Co.

In teaching these subjects we should point out the opportunities for service in every occupation, calling or profession. We have an opportunity here to teach the personal and civic ideals of the Bible by instructing the pupils in the art of good living today. Use the lives of worthy men and women in connection with this instruction. The tendency, however, toward hero-worship of living national and local heroes should be avoided. Men and women should be given the credit for their good deeds, but they should not be set upon a pedestal for veneration. The emphasis should be always upon the service rendered and the opportunities for service.

Suggested Term Paper Topics for the Course in Problems of American Democracy

1. Profit-sharing in the United States; 2. Profit-sharing in North Carolina; 3. Industrial relations in North Carolina; 4. Crime and correction; 5. The case against Socialism; 6. The negro problem; 7. American family life today and its probable effects; 8. The rural problem; 9. The history of education in the United States; 10. The history of Education in North Carolina; 11. State supervision of public schools in North Carolina; 12. What the United States is doing for the education of the immigrant; 13. Immigrant communities in the country; 14. The country life movement; 15. The care of dependents in North Carolina; 16. The junior republic; 17. The work of Judge Ben Lindsay; 18. The public schools of North Carolina; 19. Municipal government; 20. The development of the North Carolina Constitution; 21. The United States and the League of Nations; 22. Should the Monroe Doctrine be continued as a part of the foreign policy of the United States? 23. The United States and the protectice tariff; 24. Should the United States own and control the coal mines? 25. The short ballot; 26. The Federal Reserve System; 27. Conservation in the United States; 28. The origin and growth of political parties in the United States; 29. The initiative, referendum, and recall.

MATERIALS ON THE TEACHING OF THE SOCIAL STUDIES

Every teacher of the social studies will find it profitable to join the National Council for the Social Studies and to subscribe for the *Historical Outlook*, a monthly publication (nine months). Membership and magazine $3.00; magazine, $2.00.

The Classroom Teacher. Vol. XI. The Classroom Teacher, Inc., Chicago, Ill.

Dawson E.—*Teaching of the Social Studies.* Macmillan, 1927, $2.00.

Hatch, R.—*Training in Citizenship.* Scribners, 1926, $1.60.

Johnson, H.—*The Teaching of History.* Macmillan, 1924, $1.80.

Klapper, P.—*Teaching of History.* Appleton, 1926, $1.75.

Knowlton, D. C.—*History and the Social Studies in the Junior High School.* Scribners, 1926, $1.60.

Knowlton, D. C.—*Making History Graphic.* Scribners, 1925, $1.10.

Osborn, W. J.—*Are We Making Good at Teaching History?* Public School Publishing Co., 1926, $1.25.

Rugg, E. U.—*Curriculum Studies in the Social Studies and Citizenship.* Colorado State Teachers College.

Tryon, R. M.—*Teaching of History in Junior and Senior High Schools.* Ginn and Company, 1921, $1.48.

Twenty-second Year-book for the National Society for the Study of Education. Part II. *The Social Studies in the Elementary and Secondary School.* Public School Publishing Company, 1923, $1.50.

Dawson, E.—*The History of Inquiry.* McKinley, 1924, $0.50.

Gambrill, J. M.—*Experimental Curriculum Making in the Social Studies.* McKinley, 1923, $0.50.

PARALLEL READING

Parallel reading in historical fiction is of inestimable value in connection with history work. There are many books available. For courses in World History the following list is helpful:

Blackmore, R. D.—*Lorna Doone.*

Bulwer-Lytton, Edward—*The Last Days of Pompeii.*

Cox, G. W.—*Tales of Ancient Greece.*

Dickens, Charles—*Tale of Two Cities.*

Eliot, George—*Romola.* Florence in the latter part of the fifteenth century.

Hugo, Victor—*Ninety-three.* Insurrection in La Vendee, 1793; *Notre Dame de Paris.* Paris in the late fifteenth century.

Irving, Washington—*The Alhambra.*

Kingsley, Charles—*Hypathia.*

Westward Ho! Voyages of Elizabethan seamen and the struggle with Spain.

Kipling, Rudyard—*Puck of Pook's Hill.*

Reade, Charles—*The Cloister and the Hearth.* Eve of the Reformation.

Scott, Sir Walter—*The Talisman, Reign of Richard I, Ivanhoe.*

Sienkeiwicz, Henry—*With Fire and Sword.* Poland in the seventeenth century.

Thackeray, W. M.—*Henry Esmond.* England during the reigns of William III and Queen Anne.

Tolstoy (Count), L. N.—*War and Peace.*

Wallace, Lew—*Ben Hur.* A tale of the Christ.

Waterloo, Stanley—*The Story of Ab.* Prehistoric life.

A. Suggested list of parallel work in American history:

Colonial Days: *Canavan, M. J.:* B'en Comee; *Dix, Beulah M.:* The Making of Christopher Ferringham; *Hough, Emerson:* Mississippi Bubble; *Irving, Washington:* A History of New York by Diedrich Knickerbocker; *Johnston, Mary:* To Have and to Hold; *Rayner, Emma:* In Castle and Colony.

Conflict and Independence: *Churchill, Winston:* Richard Carvel; *Thackeray, W. M.:* Henry Esmond, The Crossing; *Cooper, James Fenimore:* The Spy; *Ford, P. Y.:* Janice Meredith; *Mitchell, S. Weir:* Hugh Wynne; *Rives, Hallie E.:* Hearts Courageous.

The Clash of Political Parties: *Allen, James Lane:* The Choir Invisible; *Atherton, Gertrude:* The Conquerer; *Mitchell, S. Weir:* The Red City. (A sequel to Hugh Wynne.)

Jeffersonian Republicans: *Bacheller:* Dri and I; *Barnes, James:* Midshipman Farragut; *Melville, Herman:* Moby Dick.

Jacksonian Democracy: *Braden, J. A.:* Far Past the Frontier; *Hough, Emerson:* Fifty-four Forty or Fight.

The Rise of the Industrial System: *Crane, Stephenson:* The Red Badge of Courage; *Dickens, Charles:* Martin Chuzzlewit; *Eggleston, Edward:* The Hoosier Schoolmaster; *Watts, Mary S.:* Nathan Burke.

Political Evolution of the South: *Cable, G. W.:* John March, Southerner; *Glasgow, Ellen:* The Voice of the People; *Page, Thomas Nelson:* Red Rock.

Business Enterprise and the Republican Party: *Bacheller, Irving:* Cricket, Heron; *Churchill, Winston:* Coniston; *White, W. Allen:* A Certain Rich Man.

Development of the West: *Hough, Emerson:* The Girl at the Half Way House; *Jackson, Hellen Hunt:* Ramona.

The Spirit of Reform in United States: *Dillon, Mary:* The Leader; *Hurt, Walter:* The Scarlet Shadow.

Industrial Democracy: *Poole, Ernest:* The Harbor.

The World War: *Wells, H. G.:* Mr. Britling Sees It Through; *Heath:* Webster's Modern European History, pp. XXI-XXXII. "Suggestions for further study" will be found exceedingly helpful.

AIDS FOR CURRENT EVENTS STUDY

Kimball, R. S.—*Current Events Instruction.* Houghton-Mifflin Co., 1928.

MacColl, G. B.—*Summary of Current International Events.* McKinley, 1929, $.25.

Current Events Year-book. American Education Press, Columbus, Ohio, $.25.

Current Events Guide. Published weekly for teachers. American Education Press, $.35.

World News. Weekly magazine. American Education Press.

World Review. Weekly magazine. American Education Press.

Weekly News Review. Weekly magazine. Lock Box 1915, Washington, D. C.

Looseleaf Current Topics. Weekly magazine. Looseleaf Education, Inc., Columbus, Ohio.

Literary Digest. Funk and Wagnalls, New York.

Student Service. Monthly magazine. Editorial Research Reports, 839 17th Street, N. W., Washington, D. C.

MISCELLANEOUS AIDS AND NOTEBOOKS

Reading With a Purpose Series. A Guide to Reading. Consult complete list. American Library Association, Chicago, $.35.

Odum, H. W.—*Sociology and Social Problems.*

Marshall, L. C.—*Economics.*

Vernon, A. W.—*Ten Pivotal Figures in History.*

Ammarell, R. R.—*Syllabus for Problems of American Democracy.* McKinley, $.50.

Bailey, D. C.—*A New Approach to American History.* University of Chicago Press, 1927, $1.00.

Barnes, C. C.—*Directed Study Sheets in American History.* Houghton-Mifflin Co., 1928.

Booth, M. J.—*Material on Geography.* Eastern Illinois State Teachers College, Charleston, Ill., 1927, $.50.

Bureau of Education, List of Publications. Department of Interior, Washington, D. C.

Butcher, W. A.—*Work Test Manual in American History.* Macmillan, 1927, $.64.

Channing, Hart and Turner—*Guide to Study and Reading of American History.* Ginn and Co., $3.50.

College Entrance and Regents Questions. Ancient and Mediæval History, Modern History and American History. College Entrance, Inc., 104 Fifth Avenue, New York.

Edmonson, J. and Dondineau, A.—*Citizenship Through Problems.* Macmillan, 1928, $.72.

Foote, J. W.—*Directed Civics Studies.* World Book Co., 1928, $.76.

Gathany, J. M.—*The Civics of Society.* McKinley, $.45.

Hill, H., and Sellers, D.—*My Community.* Ginn & Co., 1927, $.64.

Kimmell, W. G.—*The Management of the Reading Program in the Social Studies.* McKinley, 1929, $1.00.

Maryland State Department of Education, *Curriculum Making in Problems in American Democracy Unit.* Public Opinion, 1929, $.35.

McKinley Illustrated Topics for Ancient and Mediæval, Modern and American History. McKinley, $.63 each.

Morgan, D.—*Case Studies for Classes in Civics.* Laidlaw Bros., 1928.

North Carolina Manual. North Carolina Historical Commission, Raleigh, N. C. Free.

Oxford Review Series. Ancient and Mediæval, Modern and American History, Civics and Economics. Oxford Book Company, 111 Fifth Ave.

Handbook of Social Resources of the United States. American Red Cross, Washington, D. C., 1921, $1.00.

Regents Questions and Answers. Ancient and Mediæval, Modern and American History and Civics. Regents Publishing Co., 31 Union Square, New York.

Wilgus, A. C.—*An Outline of Hispanic American History.* McKinley, $.75.

Wilson, H. E.—*Laboratory Manual in American History.* American Book Co., 1927.

COURSES OF STUDY

1. Baltimore, Maryland, Department of Education. *Social Studies for Senior High School.*

2. Denver, Colo. *Public School Social Science,* Senior High School, 1926, $1.80.

3. Long Beach, Calif. City schools. *United States History and Government.* Senior High School, 1927, $1.20.

4. New York, N. Y.—Superintendent of Schools. *Civic Activities, 1927.* $.10.

5. St. Louis, Mo.—Board of Education. *World History Economics, Sociology.*

6. University of Iowa, Iowa City, Iowa—*Courses in the Social Studies for Senior High Schools: Tenth Grade, Eleventh Grade, Twelfth Grade.* $.50.

SUGGESTED MAP MATERIAL

For list of maps see page 13, High School Manual, 1929.

Desk maps can be obtained from McKinley Publishing Co., A. J. Nystrom, Denoyer-Geppert Co., and Rand-McNally.

THE FOREIGN LANGUAGES

AIMS AND VALUES

Discussing the aims and values for the study of foreign languages Dr. Inglis* has the following to say:

"Values claimed for the study of foreign languages in the American secondary school may be readily classified under two broad heads: (1) those which arise from the relatively direct and specific use of the foreign language as a medium of communication for the expression of the user's thoughts or for the interpretation of the thoughts of others; (2) those which arise indirectly from the study of the foreign language either by the effect of that study on the language-thought relation or through the improvement of certain general mental traits. Either of these grouped values may be further subdivided. Thus under the head of direct and specific values should be considered: (a) the use of the foreign language for purposes of social intercourse, including its use in travel, etc.; (b) its use for commercial purposes; (c) its instrumental use for reading purposes—its propaedeutic values; (d) its social-cultural use as a means for extending one's understanding and appreciation of the literature, history, life, customs, etc., of other peoples. Under the head of indirect and general values should be considered: (a) the use of the study of a foreign language for the development of ability to associate language and thought in one's native tongue; (b) the use of the study of a foreign language to development of certain general mental traits."

Regarding the direct values of the study of foreign languages he continues:

"While no single direct value of the study of foreign languages can justify any great amount of attention to those subjects in the program of studies and while their direct values are limited and contingent to a degree not ordinarily appreciated, the coördination and correlation of all those direct and specific values establishes an aggregate value which is important for the secondary school program. The number of pupils who may properly study a modern foreign language for purposes of social intercourse, plus the number who may study it for vocational purposes, plus the number of those who may study it for instrumental-propaedeutic purposes, plus the number of those who may study it for social cultural values, gives an aggregate number of pupils who may legitimately study a foreign language in the public secondary school large enough to warrant attention to its study therein."

In discussing the values of foreign language study for language-thought relations Dr. Inglis has given us three important aims in the teaching of foreign language, namely:

1. Enlargement of vocabulary.
2. Rendering terms more precise and accurate instruments of thought and expression.
3. The development of habits of interrelating words so as to facilitate consecutive thinking and consecutive discourse.

*Note: Principles of Secondary Education.—Inglis. Houghton Mifflin Company, Boston, Massachusetts.

LATIN

Aims or Objectives

THE FOUR-YEAR COURSE

I. IMMEDIATE OBJECTIVES

The indispensable primary immediate objective which underlies the entire process for each year of the course is progressive development of power to read and understand Latin. This involves an increasing mastery of the elements of the language, namely, vocabulary, forms and syntax. The relative emphasis to be attached to these elements year by year will depend upon the contribution which they may make to the ability to read and understand Latin or to the attainment of certain of the ultimate objectives.

II. ULTIMATE OBJECTIVES

The following lists give the ultimate objectives we regard as valid for each successive year of the four-year course. The relative emphasis ordinarily to be attached to these ultimate objectives is indicated by the order in which they are given.

First Year.

1. Increased understanding of those elements in English which are related to Latin.
2. Increased ability to read, speak and write English.
3. Development of an historical and cultural background.
4. Development of correct mental habits.
5. Development of right attitudes toward social situations.
6. Increased ability to learn other foreign languages.
7. Elementary knowledge of the simpler general principles of language structure.

Second Year.

1. Increased understanding of those elements in English which are related to Latin.
2. Increased ability to read, speak and write English.
3. Development of an historical and cultural background.
4. Development of correct mental habits.
5. Development of right attitudes toward social situations.
6. Increased ability to learn other foreign languages.
7. Elementary knowledge of the simpler general principles of language structure.

Third Year.

1. Increased ability to read, speak and write English.
2. Development of an historical and cultural background.
3. Development of correct mental habits.
4. Increased understanding of those elements in English which are related to Latin.
5. Development of right attitudes toward social situations.
6. Development of literary appreciation.
7. Increased ability to learn other foreign languages.

Fourth Year.

1. Increased ability to read, speak and write English.
2. Development of an historical and cultural background.
3. Development of correct mental habits.
4. Development of literary appreciation.
5. Development of right attitudes toward social situations.
6. Increased understanding of those elements in English which are related to Latin.
7. Improvement in the literary style of the pupil's written English.

NOTE—The objectives given above are found on pages 79-80, The Classical Investigation, an abridged edition of which may be obtained from the American Classical League, New York University, University Heights, New York City. Price 35c. All references to the Classical Investigation in this Course of Study are to the complete, rather than the abridged edition.

First Year

The chief immediate objective of the study of Latin is ability to read Latin. If this objective is not attained in the first year it will not be attained at all. Certain forms, syntax and words formerly included in first-year Latin can safely be left until the second year and with far better results, for the introduction of the more difficult forms and rules too early in the course causes discouragement for the pupil. Failure of the pupil in the first year's work can only mean more hopeless failure in succeeding years. A safe rule is to attempt only such forms, syntax and vocabulary as will function in the experience of the pupil.

First Semester

I. Forms:

1. Nouns of the first and second declensions.
2. Adjectives of the first and second declensions.
3. Pronouns: quis, ego, tu, is, hic, ille, the relative qui.
4. Verbs: The indicative, active and passive of the first and second conjugations. The indicative of sum. The present active imperative of the first and second conjugations and of sum. The present infinitive, active and passive of the first and second conjugations. Principal parts of selected verbs of the first and second conjugations.

II. Syntax:

1. Agreement:
   - Verb with subject
   - Adjective with noun
   - Appositive with noun or pronoun
   - Predicate noun or adjective with subject
2. Case uses:
   - Nominative as subject
   - Genitive of possession
   - Dative as indirect object
   - Accusative of direct object
   - Accusative in prepositional phrases

Ablative of means
Ablative in prepositional phrases, including those with ab, de, ex, cum, and in, expressing separation, place whence, agent, manner, cause, accompaniment, place where
Vocative

III. Reading:

Not less than 10 to 15 pages of easy reading, selected with a view to its relation to the spirit and character of the Romans. The new first-year texts, including those on the North Carolina list of approved high school textbooks (1929) contain such material. For a complete list of selected readings for this and other terms see the "Classical Investigation," pages 144-151.

IV. Oral Work:

Emphasis should be placed on oral work, especially in the first two years. Translation of sentences with books closed trains the ear to correct sound and the tongue to accurate pronunciation; develops the power of thought-getting through the ear and a feeling for Latin word order; and finally furnishes drill on forms and syntax, and affords practice in memorizing Latin.

V. Word Study:

The work in derivation should not be too formal in the first half-year, but pupils should be encouraged to look for English derivatives of many of the words studied.

VI. Vocabulary:

Teachers should make a list of 250 words which are to be thoroughly mastered. The systematic study of vocabulary should begin the first week of the first year and continue throughout the course. To trust to chance in this matter is an enormous waste. The 2,000 numbered words in Lodge's "Vocabulary of High School Latin," will serve as a guide to teachers in selecting a minimum list. This book is published by Teachers' College, Columbia University, New York City. The complete college entrance list is found in "A Latin Word List," College Entrance Examination Board, 431 West 117th St., New York City. Price 25c. Excellent selected lists appear in two pamphlets by Hurlbut and Allen, "A Latin Vocabulary for First and Second Years with English Meanings," and "A Latin Vocabulary for Third and Fourth Years with English Meanings." American Book Co., Atlanta, Ga. Price 40c.

It will be wise as a general rule to teach the words in the order in which the pupil actually meets them in his reading. To this general rule there are two exceptions:

1. Compounds and derivatives can be learned more economically at the time at which the simple word is learned; for instance abutor which occurs at the beginning of the first Catilinarian Oration should have been learned the first time the pupil met the simple word utor.
2. Words which, through similarity of form, are likely to be confused, may profitably be learned together, even though one of them may not occur in the pupil's reading for some time; for in-

stance, ager, agger, and aeger; paro, pareo, pario; callidus, and calidus. Many teachers prefer making these comparisons after the words have occurred in the reading rather than in anticipation of their use.

A fundamental principle is that vocabulary lessons should be *taught*, not merely *assigned*. The pupil, of course, can by a feat of memory unrelieved by intelligence—learn a list of words; but that procedure is wasteful of time and effort. The pupil needs to be taught how to learn words; and this study can be made intensely interesting to him. Two facts often overlooked, may be mentioned here. One is that words should be learned so as to be a permanent possession—not learned today to be forgotten tomorrow or next week. The other is that the pupil should be urged, whenever he meets an unfamiliar word in his Latin reading, to try to discover its probable meaning (by word-analysis, through English derivatives, or from the context) before he has recourse to a vocabulary or dictionary.

SECOND SEMESTER

I. Forms:

1. Nouns: Third declension including i-stems.
2. Adjectives: Adjectives of the third declension (i-stems and comparatives); irregular adjectives (unus, etc.); cardinal numerals with the declension of duo, tres, and milia; ordinal numerals; comparison of regular adjectives and common irregular forms.
3. Adverbs: Formation and comparison of the three regular types and the common irregular forms, as bene, male, magnopere, multo, parum.
4. Verbs: Third conjugation, including verbs ending in -io and fourth conjugation, indicative, active and passive; present infinitive, active and passive. The present passive imperative of the regular conjugations. The indicative of possum. Perfect passive participle of the regular verbs. Principal parts of selected verbs.

II. Syntax:

1. Agreement:
   Pronoun with antecedent.
2. Case uses:
   Dative with adjectives denoting likeness, usefulness, fitness, friendliness, nearness and their opposites
   Dative of possession
   Accusative as subject of infinitive
   Accusative of duration of time and extent of space
   Ablative of personal agent; of time; of cause
   Uses of the locative case.
3. Verb uses:
   Infinitive as in English; infinitive in indirect discourse.

III. Reading:

Not less than 25 pages of connected easy reading of somewhat greater difficulty than that read in the first half-year. This may

be selected from the first year-book or from such reading as is suggested on page 145 of the Classical Investigation.

IV. Oral work:

This should be a continuation of the work of the first half-year.

V. Word study:

The relation of Latin and English words, and the method by which Latin words are formed from prefix, base and suffix.

VI. Vocabulary:

A selected list of 250 additional words should be thoroughly mastered, making a list of about 500 words for the year. See suggestions made for the first half-year for learning vocabulary.

SUPPLEMENTARY READING

Colum, Padraic—*The Adventures of Odysseus and the Tale of Troy.* Macmillan Co., Atlanta, 1918, $1.20.

Colum, Padraic—*The Golden Fleece and the Heroes Who Lived Before Achilles.* Macmillan Co., Atlanta, 1921, $1.80.

Cowles, Mrs. J. D.—*Our Little Roman Cousin of Long Ago.* L. C. Page & Co., Boston, $1.00.

Crew, Helen Coale—*The Trojan Boy.* Century Co., New York, 1928, $1.75.

Gale, Agnes C.—*Achilles and Hector;* also *Ulysses.* Rand, McNally & Co., Chicago, 1903, 75 cents.

Guerber, H. A.—*The Story of the Greeks.* American Book Co., Atlanta, 72 cents.

Guerber, H. A.—*The Story of the Romans.* American Book Co., Atlanta, 1896, 72 cents.

Hall, Jennie—*Buried Cities.* Macmillan Co., Atlanta, 1922, $2.00.

Hawthorne, Nathaniel—*Tanglewood Tales and the Wonder Book.* Houghton-Mifflin Co., Boston, 1881.

Lamprey, L.—*Children of Ancient Rome.* Little, Brown and Co., Boston, $1.75. Also *Children of Ancient Greece.*

Haaren and Poland—*Famous Men of Rome.* American Book Co., Atlanta, 1921, 72 cents.

Harding, C. H. and S. B.—*The City of the Seven Hills.* Scott, Foresman and Company, Atlanta, 1902, 88 cents.

Hernberg, M. J.—*Myths and Their Meaning.* Allyn and Bacon, Atlanta, 1928, $1.00.

Lovell, Isabel—*Stories in Stone from the Roman Forum.* Macmillan Co., Atlanta, 1926, $1.50.

Pease, Cyril A.—*The Toils and Travels of Odysseus.* Allyn and Bacon, Atlanta, 1926, 80 cents.

Preston and Dodge—*The Private Life of the Romans.* Benjamin Sanborn and Co., New York, 1893, $1.50.

Sabin, Frances E.—*Classical Myths That Live Today.* Silver, Burdett and Co., Newark, N. J., 1927, $1.92.

Tappan, Eva Marsh—*Old World Hero Stories.* Houghton-Mifflin Co., Boston, 1911.

Tappan, Eva Marsh—*The Story of the Roman People.* Houghton-Mifflin Co., Boston, 1911, $1.32.

Winlow, Clara V.—*Our Little Carthaginian Cousin of Long Ago.* The Page Co., Boston, 1915.

Second Year

First Semester

I. Forms:

1. Nouns of the fourth and fifth declensions:
   The irregular nouns vis, domus.
2. Pronouns: Review all pronouns assigned for the first year; learn quidams.
3. Verbs: Review the indicative of the regular verbs, of sum, possum; the present infinitives
   Subjunctive of sum, and subjunctive, active and passive, of all regular and io verbs
   Infinitives and participles of all regular and io verbs
   Conjugation of fero, eo, fio, volo, nolo, malo
   The gerund
   Principal parts of selected verbs.

II. Syntax:

1. Case uses:
   Genitive of the whole; description
   Dative with intransitive verbs; dative with compounds; dative of reference; of agent
   Ablative absolute
   Ablative of description; of respect; of comparison
   Ablative depending on the verbs utor, etc.
2. Verb uses:
   Independent volitive subjunctive
   Subjunctive of purpose; of result; of indirect question; in cum circumstantial, casual, concessive clauses
   Sequence of tenses.

III. Reading:

Not less than 40 pages of easy Latin narrative. This material may be taken from first-year books or from a list such as is given on page 146 of the Classical Investigation. It may include Cæsar's Helvetian Campaign, Chapters 1-12, 23-29, of the Gallic War.

IV. Vocabulary:

A list of about 250 words as in the preceding half years should be thoroughly learned. Note the Hurlbut and Allen Vocabulary Lists mentioned on page 74.

V. Word Study:

Definite study of word formation and derivation should be made. Many of the newer textbooks provide series of lessons as a basis for the work. Consult the general Bibliography, page 88, for helpful references on this topic.

VI. Composition:

Continued drill in writing Latin sentences, using the vocabulary and syntax studied in this half-year.

SECOND SEMESTER

I. Forms:

1. Pronouns: Aliquis, quisque, quisquam.
2. Verbs: Deponent verbs of all conjugations.
   Principal parts of selected verbs.

II. Syntax:

1. Case uses:
   Dative of purpose.
   Drill in the use of the ablative absolute and gerundive constructions.
2. Verb uses:
   The subjunctive in substantive clauses with ut and ne, including those dependent upon verbs of fearing in relative clauses of purpose; in clauses of characteristic; in subordinate clauses in indirect discourse. The indicative in temporal clauses with postquam, ubi, ut, etc.; in casual clauses with quod, quoniam. The gerundive.

III. Reading:

An amount of classical Latin equivalent to not less than 35 pages of Teubner text. The following passages from the Gallic War I-VII are suggested: Book II, 1-18; Book III, 13-16; Book IV, 20-38; Book V, 40-49; Book VI, 9-23; Book VII, 1-10, 63-71. For those who wish to vary the content of the work of this term reference to the list of authors suggested on page 149 of the Classical Investigation will give abundant material.

IV. Vocabulary:

Not less than 250 new words should be thoroughly learned. For suggestions as to teaching vocabulary refer to the instructions given for the first half-year and the statement in the Introduction, page 81.

V. Word Study:

See word study for first semester, second year.

VI. Composition:

Exercises based on the principles of syntax studied sufficient to give the pupils complete mastery of the indicative mode, the common uses of the subjunctive, the infinitives and participles, and the gerundive of purpose. These exercises should be both oral and written.

VII. Life and Times of Cæsar:

Attention should be given to the civilization and customs of the Gauls, Germans, and Britons; the historical importance of Cæsar and his Gallic campaign; the life of the Roman soldier and the organization of the Roman army. These topics can be brought out through talks and collateral reading.

VIII. Geography:

A fine opportunity is offered in the study of the Gallic War to compare Cæsar's campaigns and battle-lines with the battle-lines and campaigns of the World War and thus add to the interest of pupils, as well as to their knowledge of geography.

SUPPLEMENTARY READING

Anderson, Paul—*With the Eagles.* D. Appleton and Co., New York, 1929, $1.75.

Church, A. J.—*Lucius: The Adventures of a Roman Boy.* Dodd, Mead and Co., New York, 1924, $2.00.

Clarke, M.—*The Story of Cæsar.* American Book Co., Atlanta, 60c.

Davis, William S.—*A Friend of Cæsar.* Macmillan Co., New York, 1915, $2.50.

Davis, William S.—*Readings in Ancient History: Rome,* Vol. II. Allyn and Bacon, Atlanta, 1913, $1.40.

Fowler, W. Warde—*Julius Cæsar and the Foundation of the Roman Imperial System.* G. P. Putnam's Sons, New York, 1897, $2.50.

Froude, J. A.—*Cæsar: A Sketch.* Charles Scribner's Sons, New York, 1895, $2.00.

Henty, George H.—*Beric, The Briton.* Charles Scribner's Sons, New York, 1924, $1.50.

Henty, George H.—*The Young Carthaginian.* Charles Scribner's Sons, New York, 1886.

Judson, Henry Pratt—*Cæsar's Army.* Ginn and Co., Atlanta.

McCartney, Eugene S.—*O Warfare by Land and Sea.* Longmans, Green and Co., New York, 1923, $2.00.

Shakespeare, William—*Julius Cæsar.*

Wells, R. F.—*On Land and Sea With Cæsar.* Lothrop, Lee and Shepard, Boston, 1926, $1.50.

Wells, R. F.—*With Cæsar's Legions.* Lothrop, Lee and Shepard, Boston, 1923, $1.50.

Whitehead, A. C.—*The Standard Bearer.* American Book Co., Atlanta, 1914, 72 cents.

SPECIAL BOOKS FOR THE TEACHER OF CÆSAR

College Entrance and Regents Companion to Cæsar. College Entrance Book Co., 104 Fifth Ave., New York City, 1927. Price 75 cents; paper 50 cents.

Dodge, T. A.—*Cæsar* (Great Captains). Houghton-Mifflin Co., 1892.

Holmes, T. Rice—*Cæsar's Conquest of Gaul.* Oxford University Press, American Branch, New York, 1903, $8.35.

Kingsley, Maud Elma—*Latin Outline Studies Nos. 1 and 2, Cæsar's Commentaries.* The Palmer Company, Publishers, Boston, Mass., 1908. Price, 20 cents each.

Third Year

At the very beginning of this course the student should understand that he is reading oratory and not narrative. In order that the transition from Cæsar to Cicero may be less abrupt, early attention should be given to the following: extensive use of pronouns; verbs in first and second

person in contrast with the almost exclusive use of the third person in Cæsar; imperatives; the greater elasticity of word order and the rhetorical devices of oratory.

AIMS

(Copied from the New York Syllabus)

1. Training in citizenship through argumentation and debate; careful study of the structure, especially of the Manilian Law.
2. Training in oratory; study of the means by which a public speaker achieves his effects. Comparison with modern masterpieces.
3. Training in politics and economics; corruption of governmental methods; class struggle; the land question; colonial possessions; exploitation of natural resources.
4. Training in ethical and moral conduct; revolution versus reform; unselfish patriotism versus egotistical aggrandizement; common honesty versus fraud.

CONTENT

The content of this course of study is, with slight modifications, that recommended by the Report of the Classical Investigation, Part I, pages 150 and 151, "60 pages of Teubner text" for the third year and "Not less than 100 pages of Teubner text" for the fourth year. However, since this is a substantial reduction in the amount of reading formerly required, and since some of our students are preparing to meet college entrance requirements in Latin, it has been thought wise to suggest a minimum and a maximum content. The weight of emphasis should fall upon the minimum content for intensive study with a wide reading in English on the subject "bearing on the historical-cultural objectives."

REQUIRED READINGS

Not less than sixty pages of Teubner text.

Minimum:

In Catilinam I, In Catilinam III, De Imperio Pompeii, Pro Archia Poeta.

Maximum:

The minimum requirement with the addition of In Catilinam II or In Verrem (The Plunder of Syracuse) or Selected Letters (as much as 12 pages of the Teubner text).

For a wider range of choice as to authors see page 150 of the Classical Investigation. But, whatever authors may be selected, the pupil should be taught to *read* Latin, not merely to *decipher* it. Incessant practice should be given in learning to *feel* the meaning of the Latin in the Latin order. The extent to which formal, polished translations should be required is a point on which opinions differ. It should not be forgotten that there are two entirely distinct processes involved. One is to grasp the meaning of the Latin; this is necessary at all times, and, in the ideal situation, it is ideally done by reading the Latin in the Latin order without conscious translation. The other is to express the meaning in idiomatic English (which means something more than colorless, technically correct English).

Study of Content

Geography.
The Provinces.

Roads:
Appia Latina; Aurelia (road over which Catiline fled); Flaminia (Mulvian bridge).

Towns:
Arpinum (Cicero's birthplace); Brundisium (port of departure for Greece); Faesulae (location of Catiline's camp); Forum Aurelium (place where Catiline's bodyguard awaited him); Pompeii (source of information concerning private life of Romans); Praeneste (mountain fortress which Catiline hoped to seize); Reate (home district of the troops that captured the conspirators).

Forum:
Rostra; Basilica Julia; Templum Jovis Maximi Capitolini; Templum Vestae; Templum Saturni; Curia; Comitium; Templum Concordiae; Templum Castoris et Pollucis; Palatine (residences of Cicero and Catiline).

Constitution:
1. The three "orders"; 2. Senate; 3. Officers.

SUPPLEMENTARY READING

The student should make an intensive study of some topic in his reading and present this as a term paper, either in the form of a report to the class or as a contribution to a Cicero scrap-book. The following are suggestive topics: The Forum; Early Buildings; Cicero as an Orator; The Human Side of Cicero; Cicero's Country Homes; Slaves in Rome; A Typical Roman House; Government in the Time of Cicero; Political Parties in Rome; Consular Elections; Roman Religion; Roman Feast Days; Catiline, the Friend of the Common People; Roman Roads.

Abbott, Frank F.—*Roman Political Institutions.* Ginn and Co., Atlanta, 1911, $2.00.

Abbott, Frank F.—*Roman Politics.* Longmans, Green and Co., New York, 1923, $1.75.

Allinson, Anne C. E.—*Children of the Way.* Harcourt, Brace and Co., New York, 1923, $1.50.

Boissier, Gaston—*Cicero and His Friends.* (Translated by Adnah D. Jones.) G. P. Putnam's Sons, New York, 1907, $2.50.

Bulwer-Lytton—*The Last Days of Pompeii.* E. P. Dutton and Co., New York, 1908, 80 cents.

Church, A. J.—*Roman Life in the Days of Cicero.* Macmillan Co., Atlanta, 1928, $2.00.

Davis, William S.—*A Day in Old Rome.* Allyn and Bacon, Atlanta, 1924, $1.80.

Davis, William S.—*The Beauty of the Purple.* Macmillan Co., Atlanta, $2.50.

Davis, William S.—*A Victor of Salamis.* Macmillan Co., Atlanta, 1916.

Fowler, W. Warde—*Roman Festivals.* Macmillan Co., Atlanta, 1908, $2.50.

Fowler, W. Warde—*The Social Life of Rome in the Age of Cicero.* Macmillan Co., Atlanta, 1909, $3.00.

Huelson, Christian—*The Roman Forum and the Palatine.* A. Brüderhausen, 47 West 47th St., New York, 1928, $3.50.

Lanciani, Rodolfo—*Ancient and Modern Rome.* Longmans, Green and Co., New York, 1927, $1.75.

Masefield, John—*The Tragedy of Pompey the Great.* Macmillan Co., Atlanta, 1914.

Petersson, Torsten—*Cicero, A Biography.* University of California Press, Berkeley, California, 1920, $5.00.

Sienkiewicz, H.—*Quo Vadis.* Crowell Publishing Co., New York, 1921 reprint.

Strachan-Davidson—*Cicero and the Fall of the Roman Republic.* G. P. Putnam's Sons, New York, 1906, $2.50.

Wallace, Lew—*Ben Hur.* Harper and Brothers, New York, 1908, $3.50.

White, Edward L.—*Andivius Hedulio.* E. P. Dutton and Co., New York, 1921, $2.00.

White, Edward L.—*The Unwilling Vestal.* E. P. Dutton and Co., New York, 1918, $2.00.

SPECIAL BOOKS FOR THE TEACHER OF CICERO

Allinson, A. C. E.—*Roads from Rome.* Macmillan Co., 1913, $1.50.

College Entrance and Regents Companion to Cicero. College Entrance Book Co., 104 Fifth Ave., New York City, 1927. Price 90 cents; paper 65 cents.

Kingsley, Maude Elma—*Latin Outline Studies Nos. 3, 4, and 5, Cicero.* The Palmer Co., Publishers, Boston, Mass., 1907. Price 20 cents each.

Plutarch's Lives (Everyman's Library Series). E. P. Dutton Co., New York, 1910, Vols. I-III. 80 cents each.

Rolfe, John C.—*Cicero and His Influence.* Longmans, Green and Co., New York, 1923, $1.75.

SYNTAX

A review of the principles of syntax found in Cæsar with the addition of the following: Dative of Reference; Accusative of Exclamation; Locative and Vocative Cases; The Roman Calendar and Methods of expressing dates; Conditional Sentences; Subjunctive in independent clauses; Relative Clauses of Characteristic; Clauses of Proviso; Imperative.

VOCABULARY

Two hundred and fifty to 300 new words. These words should be chosen at the beginning of the year with the help of Lodge's Vocabulary of High School Latin (Columbia University Press), or of Hurlbut and Allen, A Latin Vocabulary for Third and Fourth Years (American Book Company), and underlined in the text. See suggestions for first half-year.

WORD STUDY

A continuation of the work of the first two years, stressing the study of derivatives from the vocabulary selected for the year.

COMPOSITION

The equivalent of one lesson a week throughout the year. Constant practice in translating from English into Latin is indispensable for a mastery of the new principles of syntax and of the Ciceronian vocabulary with its fine shades of meaning.

ILLUSTRATIVE MATERIAL

1. A collection of pictures, charts, etc., from Germany. Send to A. Brüderhausen, 47 West 47th St., New York City, for circular giving description and prices. Price ten cents.

2. A limited number of Alinari and Anderson photographs from Italy. Send to A. G. Seiler, 1224 Amsterdam Ave., New York City, for list giving sizes and prices. The pictures of the Forum are especially good.

Fourth Year

The work of the fourth year, while giving due consideration to forms and syntax, should aim primarily to lead the student to appreciate the Æneid as one of the world's greatest masterpieces of literature. Attention should be given to the sources, purpose, and circumstances of its composition, and to Vergil's influence on the literature of the world. It is essential that the poem be read and felt as a poem, and not regarded as material for drill in construing Latin. Passages of special beauty should be read repeatedly. Attention should be called to the unfaltering greatness of Vergil's style, to his instinct for the right word, to his keen dramatic sense (as shown especially in the second, fourth and sixth books), to his loftiness of thought, and to his spiritual kinship with Christianity, and the pupils should be made, as far as possible, to see and feel these things themselves.

Selections to be memorized: Book I, lines 461-462; Book II, lines 48-49, 324-325, 354; Book IV, 700-705; Book VI, 126, 847-853.

Tennyson's Ode to Vergil.

The Bimillennium Vergilianum in 1930 should make available unlimited resources for the study of Vergil.

Prosody

The student should be able to read dactylic hexameter and to understand the following terms: arsis, caesura, dactyl, diaeresis, elision, hexameter, hiatus, ictus, spondee.

Grammatical Terms and Figures of Speech:

The student should understand the meaning and application of the following:

1. Grammatical terms:
   Anastrophe, archaism, asyndeton, hendiadys, hysteron proteron, tmesis, zeugma.
2. Rhetorical figures:
   Alliteration, anaphora, aposiopesis, chiasmus, metaphor, simile, metonomy, onomatopoeia, personification.

Study of Forms Peculiar to Vergil:

1. In nouns:
   Genitive Singular -ai for -ae.
   Genitive Plural -um for -arum, -orum, -uum.
   Dative Singular -u for -ui.
   In Greek nouns:
   First Declension nouns in -e (fem.), -es (mas.), -is (mas.).
   Second Declension nouns in -os, -eus (accusative -ea).
   Third Declension nouns (a) in es (genitive singular -i) -is, ys; (b) with nominative plural (in -es), accusative singular in -a, and accusative plural in -as.
2. In pronouns:
   olli for illi
   ollis for illis
   quis for quibus.
3. In verbs:
   Present Infinitive Passive: -ier for -i.
   Imperfect Indicative of fourth conjugation: -ebat, -ebant for -iebat, -iebant.
   Perfect Indicative third person plural: -ere and -erunt.
   Forms of perfects and pluperfects without -is (s) or -sis; for example traxe for trax -iss -e.

Syntax common to Vergil rare in Cæsar and Cicero:

1. Genitive (a) with adjectives, (b) with verbs of remembering and forgetting, (c) with miseret, paenitet, pudet, etc.
2. Dative (a) of direction and limit of motion for *ad* or *in* with accusative, (b) of agency for *a* or *ab* with ablative with any passive form of a verb, (c) with verbs of mingling, contending, etc.
3. Accusative (a) of limit of motion where prose would require *ad* or *in* with accusative, (b) of specification, (c) as object with passive forms used like Greek middle voice, (d) adverbial.
4. Ablative (a) of place in, on, from without a preposition, (b) of comparison, (c) of price, (d) of manner without a modifier.
5. Imperative (or subjunctive) with ne to express prohibition where prose would use noli with the infinitive.
6. Subjunctive (a) hortatory, (b) second person jussive, (c) optative, (d) of obligation.
7. Clauses with velut si, quasi, etc.
8. Infinitive (a) with adjectives and nouns and with many verbs that do not take the infinitive in prose, (b) historical, (c) purpose, (d) of exclamation.
9. Supine in u.
10. Use of plural of nouns in the sense of the singular.

VOCABULARY STUDY

Four to five hundred new words, based on Lodge's Vocabulary. See vocabulary suggestions for the third year.

WORD STUDY

See suggestions for the third year.

COMPOSITION

Prose composition is considered optional in the fourth year. Under the subject of Composition in the general suggestions given below are some ideas which may stimulate the thoughtful teacher.

SUPPLEMENTARY READING

The required amount should be one handbook of mythology, such as Guerber's or Gayley's, and one book of literary criticism, such as Glover's *Vergil* or Sellar's *Roman Poets of the Augustan Age: Vergil.* There should be a term paper based on an intensive study of some phase of this reading. The following topics are suggested:

Epic Poetry.
Vergil's Debt to Homer.
Character of Æneas.
Figures of Speech in the Æneid.
Visions and Dreams in the Æneid.
Vergil as a Nature Poet.
Striking Scenes in the Æneid.
Fatalism in the Æneid.
The Roman Conception of Elysium and Hades.
Vergil in the Middle Ages.
Vergil's Influence on Literature in General.

Baikie, James—*Sea Kings of Crete.* Macmillan Co., Atlanta, 1926, $4.25.

Bulfinch, Thomas—*Age of Fable.* E. P. Dutton and Co., New York, 1926, 80 cents.

Code, Grant H.—*When the Fates Decree.* R. J. Brimmer Co., 384 Boylston St., Boston, Mass., $1.00. (An English play based on the Æneid.)

Fowler, W. W.—*The Religious Experience of the Roman People.* Macmillan Co., Atlanta, 1922, $6.00.

Frank, Tenney—*Vergil: A Biography.* Henry Holt and Co., New York, 1922, $2.00.

Gayley, Charles M.—*Classic Myths in English Literature and Art.* Ginn and Co., Boston, Mass., 1911, $1.92.

Hannah, Ian C.—*Voadica, A Romance of the Roman Wall.* Longmans, Green and Co., New York, 1928, $2.00.

Hawthorne, Nathaniel—*The Marble Faun.* E. P. Dutton and Co., New York, 1910.

Lang, Leaf, and Myers—*Translation of the Iliad.* Macmillan Co., Atlanta, 1928.

Miller, Frank J.—*Two Dramatizations from Vergil.* University of Chicago Press, Chicago, 1908, $1.50.

Murray, Gilbert—*The Trojan Women* (Euripides). Oxford University Press, American Branch, New York, 1915.

Palmer, Herbert—*Translation of the Odyssey.* Houghton-Mifflin Co., 1921.

Sellar, W. Y.—*The Roman Poets of the Augustan Age.* Oxford University Press, American Branch, New York, $3.50.

Sellar, W. Y.—*Vergil.* Oxford University Press, American Branch, 1897, $3.50.

Tennyson, Alfred—*To Vergil; Oenone; Ulysses.* (See collection of Tennyson's Poems.)

SPECIAL BOOKS FOR TEACHER OF VERGIL

Bennett, Charles E.—*The Quantitative Reading of Latin Poetry.* Allyn and Bacon, Atlanta, 1899, 40 cents.

Glover, T. R.—*Vergil.* Macmillan Co., Atlanta, 1912, $4.00.

Kingsley, Maud Elma—*Latin Outline Studies Nos. 6, 7, 8, 9, and 10, Vergil's Æneid.* The Palmer Co., Publishers, Boston, Mass., 1907. Price, 20 cents each.

Mackail, J. W.—*Vergil and His Meaning to the World of Today.* Longmans, Green and Co., New York, 1922, $1.75.

Prescott, H. W.—*The Development of Vergil's Art.* The University of Chicago Press, Chicago, 1928, $4.00.

ILLUSTRATIVE MATERIAL

Inexpensive sets of pictures for the Æneid may be procured from Thompson Publishing Company, Syracuse, N. Y., and from the University Prints, Newton, Mass. There should be at least one set for the classroom, and as many additional as the students can buy for their individual ownership. Students of Vergil will find the following helpful also:

Manual for the Use of Pictures, The University Prints, Newton, Mass., Price 25 cents. *The Playbook of Troy* by Susan Meriwether, Harper and Brothers, Publishers, New York City, Price $2.00.

GENERAL SUGGESTIONS

Syntax—The immediate objective of a knowledge of syntax is a clear understanding of the exact meaning and force of the passages read. It will be well, as far as practicable, to take up the various mood constructions in the order of their occurrence in the reading, and to explain them in advance as part of the lesson assignment. Advantage should be taken of the fact that some of the finest English literature (including the Authorized Version of the Bible) makes abundant use of Latin syntax. Such expressions as "The Son of Man hath not where to lay His head," and "Forasmuch as He had not to pay," are exact parallels to Cicero's *Habes ubi ostentes.* The English writers were apparently thinking in Latin while they were writing in English; and the occurrence of so much Latin syntax in English classics should be used to help the pupil to a speedier understanding of Latin construction.

There is need of care to prevent the syntactical work from becoming too technical. The important thing about a Latin case or mood construction is not the technical name (which at best is merely a matter of convenience) but the force. In other words, the important question for the pupil to answer is not, What is the name given to this construction in your grammar? but, What difference does this construction make to the meaning of the sentence?

Composition—Composition is an unsolved problem in the high school Latin course. In the practice of writing in any language, the immediate

objective is the satisfaction that attends increased power of self-expression. This natural and powerful motivation is usually ignored in the high school Latin course—presumably because teachers feel that, with the limited amount of time available, there is little chance of attaining much skill in writing Latin. The result is that, in most high schools, so-called Latin composition has drifted into an uninteresting drill in syntactical rules. The English sentences set for translation into Latin are usually disconnected, devoid of interest, and phrased in a style that is utterly foreign to the pupil.

There is need of a very different type of material for translation into Latin. The passages should be connected, the subject-matter should be within the range of the pupil's interest, and the style should be nearer to his own style. The sentences must be simple and easy, and, as a rule, short; but, even with these limitations, the passages can be made interesting, and sometimes amusing. If Cicero's letters are read in the third year, the composition assignments may be in the form of letters; and these letters may deal with matters of immediate interest to the pupils—school problems, for instance. Pupils work hardest when they are most interested.

Even in the first year, with the very severe limitations of vocabulary, inflections and syntax, it is possible to introduce a considerable amount of interest into the passages for translation into Latin. In the second year the possibilities are greatly increased. In the third year the pupil ought to be able to find a good deal of pleasure in his efforts to write a Latin letter, especially if he is reading epistolary Latin. In the fourth year, when the amount of required reading is as much as five or six books of the Æneid, there will hardly be time for much composition.

Two things are essential. The English set for translation into Latin should be idiomatic English; and the Latin version required should be idiomatic Latin. The translation thus becomes a transfer of thought rather than of isolated words. Early in the game the pupil discovers that a literal translation is impossible, and in his efforts to find an appropriate Latin idiom he picks up a considerable knowledge of Latin syntax.

Translation at Sight—In this connection we merely quote a paragraph from the Report of the Classical Investigation, Part I, page 191, and urge all teachers who would improve the speed and quality of translation to consider the importance of this:

"We recommend that practice in comprehending Latin at sight be included in the work of *every* recitation. Ninety-seven per cent of the teachers filling out the general questionnaire indicated their belief that sight translation should be made a regular part of the work, and the majority of these teachers expressed the opinion that from one-fifth to one-fourth of the class time should be devoted to this type of work. It is evident from the report given by fourth-year pupils who answered the question of content and method that classroom practice in many schools needs to be improved in this respect. Thirteen per cent of these pupils report that they have never received training in the methods of attack upon the advance assignment through reading at sight in class; nineteen per cent report that they have received this training 'sometimes'; thirty-seven per cent once or twice a week, and only about thirty per cent stated that they received this training as often as three times a week."

GENERAL BIBLIOGRAPHY FOR THE TEACHER OF LATIN

Classical Investigation, Part I, General Report. (Abridged Edition.) American Classical League, New York University, University Heights, New York City, 35 cents.

English—*Latin Debt. 12,000 English Words Derived from Latin.* Syntactic Book Co., 2088 Lunt Ave., Chicago, 60 cents.

Dennie, J.—*Rome of Today and Yesterday.* G. P. Putnam's Sons, New York, 1914, $3.50.

Fox, W. S.—*Greek and Roman Mythology* (*Mythology of All Races, Vol. I*). Marshall Jones Co., Boston, 1928, $3.50.

Game, Josiah B.—*Teaching High School Latin.* University of Chicago Press, Chicago, Revised Edition, 1925, $2.00.

Gray, Mason D.—*The Teaching of Latin.* D. Appleton and Co., New York, 1929, $2.00.

Greenough, J. B., and Kittredge, G. L.—*Words and Their Ways in English Speech.* Macmillan Co., 1901, $2.10.

Guerber, H. A.—*Myths of Greece and Rome.* American Book Co., Atlanta, 1893, $2.00.

Howe, G., and Harrer, G. A.—*A Handbook of Classical Mythology.* F. S. Crofts, New York, 1929, $1.50.

Johnston, H. W.—*The Private Life of the Romans.* Scott, Foresman and Co., Atlanta, 1903, $2.00.

Kent, Roland G.—*Language and Philology.* Longmans, Green and Co., New York, $1.75.

Lodge, Gonzalez—*Vocabulary of High School Latin.* Bureau of Publications, Teachers' College, New York, 1909, $2.00.

Mackail, J. W.—*Latin Literature.* Charles Scribner's Sons, New York, 1895, $1.75.

McDaniel, W. B.—*Roman Private Life and Its Survivals.* Longmans, Green and Co., New York, 1924, $1.75.

Paxson, Susan—*Handbook of Latin Clubs.* D. C. Heath & Co., New York, 1916, $1.00.

Peck, Harry T.—*Harper's Dictionary of Classical Literature and Antiquities.* American Book Co., Atlanta, 1897, $8.00.

Petrie, A.—*An Introduction to Roman History, Literature and Antiquities.* Oxford University Press, New York, 1918.

Sabin, Frances E.—*The Relation of Latin to Practical Life.* Secured from the author, Teachers' College, Columbia University, New York City, $2.25.

Scott and Carr—*Development of Language.* Scott, Foresman and Co., Atlanta, 1921, $1.20.

Smith, Sir Wm.—*A Smaller Classical Dictionary.* (Everyman's Library.) E. P. Dutton and Co., New York, 1923, 80 cents.

Wilkins, A. S.—*Roman Antiquities.* American Book Co., Atlanta, 1925, 56 cents.

CLASSICAL PERIODICALS

The Classical Journal. W. L. Carr, University of Michigan, Ann Arbor, Mich., $2.50. ($2.00 to members of The Classical Association of the Middle West and South.)

The Classical Weekly. Charles Knapp, editor. Barnard College, New York City, $2.00.

Latin Bulletin. Calla A. Guyles, editor. University of Wisconsin, Madison, Wis., 50 cents.

Latin Notes. Service Bureau for Classical Teachers, Teachers' College, Columbia University, New York City, $1.00 (includes membership in American Classical League).

SERVICE BUREAU FOR CLASSICAL TEACHERS

Material of great value to the teacher of Latin may be obtained at small cost from the Service Bureau for Classical Teachers. Every teacher of Latin should be familiar with the resources of this Bureau. Catalogues of materials may be secured free of charge from the Director, Miss Frances E. Sabin. *Latin Notes Supplement No. X Books and Other Equipment for the Teacher of Secondary Latin, Revised Edition* (price 10 cents), will supply necessary information on dictionaries, grammars, pictures, slides, maps, wall charts, songs, etc. A few items of special interest are listed below:

Latin Notes Supplement:

IV Famous Stories About the Romans (illustrated), 10 cents.

XV Stories About the Roman Forum (illustrated), 15 cents.

Bulletin:

VII The Roman Forum, 25 cents.

XII The Latin Club, 45 cents.

XIII Latin in the Junior High School, $1.00.

FRENCH

Purpose of Language Instruction

Leaving aside the secondary aims of language instruction, there are three principal objects which may be kept in view: A speaking knowledge, a writing knowledge, and a reading knowledge.

If the needs of the students are considered, the first of these aims can hardly be admitted as the fundamental object of the instruction. Students cannot learn to speak a foreign language with fluency in the time allowed for language study. If they could, they would know more than many of their teachers. In any case, if the object could be obtained, it would still be scarcely worth while. Not one student in a hundred will ever have need or occasion to speak a word in a tongue other than his own. The accomplishment itself is not of a high grade and the attempt to attain it often results in wasted effort.

The second possible aim, ability to write the language, must be discarded as a principal minimum objective for similar reasons. Very few students will ever have need to correspond in any tongue except their own.

The last aim is, to a certain degree, attainable even under the conditions that now prevail, and has most justification from a purely educational and cultural standpoint.

If reading knowledge should be the principal minimum aim of the instruction, the problem still remains as to how to attain this end, taking into account the teachers who at present have no common purpose, no

common training, no uniform experience, and no specific guide to follow.

It is hoped that a more detailed outline of a French course, such as is given here, will help to give a common understanding of the task, and will do much to remedy the present confusion about the teaching of French in the high school.

Pronunciation

Since the principal object of high school language study is to attain a certain degree of ability to read the foreign language, pronunciation can only be a secondary aim. But even a slight acquaintance with a foreign language demands some idea of its sound, and this knowledge must be imparted as a preliminary to the study.

The student should be taught the general rules for:

1. Tongue position.
2. Phonetic syllabication.
3. Word and phrase group stress.
4. Liaison.
5. Pronunciation of final consonants.

He should know the usual pronunciation of the following letters:

a	è	y	u	x
à	ê	o close	c	j
â	e	o open	ç	w
é	i	ô	g	h

And of the following diagraphs and combinations of sounds:

ei	ou	in	un	sc	eux
ai	eu	im	um	th	euse
au	an	ain	eun	gn	ui
oi	am	aim	gu	ill (medial)	tie
eau	en	ein	qu	eil	tiel
aux	em	on	ch	tion	eille

And, as a test to verify the minimum attainment, he should be able to give the pronunciation of a list of words similar to the following:

âge	finir	peur	main	thé
ami	sibyl	peu	sein	mignon
dame	école	sur	bon	famille
père	mauvais	du	un	pareil
tête	oie	grand	parfum	nation
reine	tôt	champ	jeun	heureux
vrai	au	dent	gueux	heureuse
de	aux	temps	quatre	tuile
le	beau	fin	chose	calvitie
donne	ou	simple	science	essentiel
				bouteille

The acquirement implied in this test should represent a minimum standard for passing and the passing grade should guarantee the attainment. Whatever the teacher may obtain further by effort and initiative in improving accent and knowledge of this vast subject, may be considered as that much gained. A minimum requirement must of necessity be kept low.

Grammar

The study of grammar is not an end in itself and should be made to serve the main purpose of acquiring a reading knowledge of the language. The construction of French is so similar to that of English that this branch of study should be comparatively simple. The chief difficulty is with the inflected forms of the language, which must be understood in order to insure accurate reading. Idiomatic differences in the manner of expression, such as "How do you *go*?" for How do you *do*?" are much less important, since they are not generalized but occur in thousands of individual variations that no one can ever know completely and that can be explained as they occur in connection with the reading. But the small group of inflected forms, especially the pronouns, occur in almost every line, and on the basis of frequency of occurrence are by far the most important words in the language. In the traditional grammar methods some of the exercises stress inflected forms, some idiomatic expressions, some simply vocabulary, but the majority of exercises mix together all these separate elements to make a complicated problem in the form of a sentence for translation. The teacher should realize the varying importance of the elements involved—how, for instance, the pronoun "it" may be a thousand times more important than the most frequently occurring nouns in the language. The guide as to the importance of words and phrases must be the frequency of occurrence.

Since certain classes of words, like the pronouns, are of such vast importance they should be known well enough to be reproduced in translation from English to French. The writing of exercises may give practice in the use of these words, insure their acquirement, and offer a secondary educational advantage of training in verbal precision.

The student should know very thoroughly:

1. The rules for agreement.
2. The forms of:
   a. Definite and indefinite articles, and contractions.
   b. Possessive adjectives and pronouns.
   c. Demonstrative adjectives and pronouns.
   d. Interrogative adjectives and pronouns.
   e. Relative pronouns, *qui, que,* and *dont.*
   f. Conjunctive pronouns—subject, direct, indirect, and reflexive.
   g. Disjunctive pronouns.
3. Inflection and comparison of adjectives and adverbs.
4. Use of the tenses of the indicative, the present subjunctive, and the imperative. The formation of compound tenses. Position of conjunctive objects. Agreement of past participle. Tense sequence in conditional sentences.
5. Partitive expressions. Use of article with general noun.
6. Forms of negation.

The extent of knowledge of the above required as a minimum attainment may be implied by ability to translate sentences or phrases similar to the following:

1. The book, a book, one book, some books, the books. 2. A pen, the pen, the pens, some pens, one pen, another pen, the

other pen, the other pens. 3. Of the book, to the book, of the books, to the books, of the pens, to the pens, some books, some pens. 4. This book—this one; that book—that one; these books—these; those books—those; this pen—this one; those pens—those; this other book; this other pen. 5. My book—mine; my books; my pen—mine; my pens; my other pen; his book; his pen; his pens; her book; her pen; her pens;—(and so on with other possessive adjectives and pronouns). 6. Which book? what book?—which one? what one? what ones? Which pen? which pens?—which ones? which one? which? 7. The book which is here. The books which I have. The book of which I speak. The pen which is here. The pens of which I speak. 8. I, you, he, she, we, you, they. 9. I am, you are, he is, we are, you are, they are. 10. With me, with you, with him, with them, with us. 11. I give it (*mas.*); *I give it* (*fem.*); I give them. 12. I give to him, I give to her, I give to you, I give to them. 13. He gives to me; she gives to us. 14. He gives it to me; I give it to him; they give them to them; they give some to us. 15. He does not give it to me; she does not give them any. 16. He has given it to her; she has not given them to us. 17. The little book; the little books; the little pen; the little pens. 18. The smallest pen; the smallest book; a book as small as this one. 19. She comes; she used to come; she was coming; she is coming; she has come; she came; if she came; although she may come; although she comes; when she comes; I wish that she would come; it is necessary that she should come; come; let him come; let them come. 20. She has not come; she will never come; he has nothing; I am speaking to no one; I have only two of them.

Verbs

The irregular verbs are among the most important words in the language. The single verb *vouloir*, for instance, may occur more times than all the verbs of the third regular conjugation put together. Because of the arrangement of the grammars and lack of drill exercises, the irregular verbs are often neglected. *Venir* is hundreds of times more important than a regular verb like *aduler* or the idiomatic phrase "What time is it?"

The attainment test under this heading is ability to recognize all forms and to reproduce all except the past definite and past subjunctive, of the following verbs:

1. Model verbs of regular conjugations.
2. *Avoir, être, aller, dormir, mourir, ouvrir, tenir, boire, connaître, craindre, dire, écrire, faire, lire, mettre, prēndre, rire, suivre vaincre, vendre, vivre, recevoir, devoir, asseoir, falloir, pleuvoir, pouvoir, savior, valoir, voir,* and *vouloir.*

Idiomatic Expressions

The number of idioms in any language is almost infinite and the grammars usually present only a random choice. The teacher must use judgment in determining whether the particular idiom is difficult to under-

stand when it appears in a reading text, and, in case it is apt to give difficulty, how often it may occur. In using the traditional grammars for exercise material great care is necessary not to confuse the essential and important with a mass of detail. It would seem preferable on the whole to consider idioms only as they occur in connection with the reading, since each idiom represents a special case and is therefore not subject to generalization or systematic treatment.

Vocabulary

The grammars in most frequent use at present make little attempt to classify and organize the study of individual words. There is therefore no advantage of mixing vocabulary study as such with study of inflection and special construction, and great disadvantage in mixing all together, i.e., in not isolating each particular problem. The usual translation sentence is a complicated puzzle involving so many different tests that the student has little opportunity to concentrate on any one vital point. It would seem better, as far as possible, to make vocabulary a special problem in connection with reading and take up new words as they occur in the reading texts.

After two years of high school French a student should be able to give the meanings of about 60 per cent of the words that appear in the following lists (taken largely from the New York University Bulletin):

Adverbs—Conjunctions:

d'abord, ainsi, assez, au-dessous, au-dessus, aujourd'hui, aussitôt que, autrefois, avant que, beaucoup, debout, dehors, déjà, demain, depuis que, encore, enfin, ensuite, environ, ici, jamais, jusqu'à ce que là, longtemps, lorsque, mais, bon marché, mieux, à moins que, au moins, ne . . . aucun, non, ou, où, partout, nulle part, pendant, que, peu, pis, plus, ni . . . non plus, plutôt, point, pourtant, pourvu que, près, quand, depuis quand, quoique, rien, sans que, si, sitôt, de la sorte, de sorte que, surtout, tandis que, tant, tard, tôt, toujours, pas du tout, tout à coup, tout à l'heure, tout de suite, toutefois.

Adjectives:

grand, petit, long, court, bref, épais, large, étroit, proche, lointain, haut, bas, profond, droit, gauche, rond, lent, premier, dernier, vieux, neuf, nouveau, jeune, mort, malade, frais, fatigué, gros, fort, faible, froid, chaud, léger, lourd, facile, difficile, doux, plein, vide, juste, cher, beau, joli, laid, demi, pauvre, noir, blond, brun, propre, sale, blanc, gris, bleu, rouge, jaune, vert, sage, bête, fou, tranquille, paresseux, bon, aimable, gentil, mauvais, méchant, content, heureux, malheureux, gai, triste, vrai, faux, ennuyeux, nu, fier, égal, étrange, étranger, aure, même, véritable, sûr, ouvert, fermé, seul, prêt, fâché, affreux, pressé, paisible, utile.

Nouns:

L'Univers: Le monde, la terre, le soleil, la lune, l'étoile, (*f*), le ciel, le nuage, la lumière, Dieu.

La Terre: l'eau (*f*), la mer, le lac, le bord, la rive, le vent, la pluie, le mont, la montagne, la forêt, la ville, la campagne, l'endroit (*m*).

Noms Géographiques: l'Anglterre, l'Allemagne, l'Espagne, la Suisse.

Le Temps: le temps, la neige, le froid, la chaleur, l'an, l'année, le mois, la semaine, le jour, l'heure, le printemps, l'été, l'hiver, le siècle, le matin, le midi, le soir, la nuit, la fête, la fois.

L'Homme: la femme, l'enfant, le vieillard, le garçon, la fille une jeune fille, le monsieur, la dame, l'ami, les gens, la foule.

Le Corps Humain: Le corps, l'âme, lesprit, la tête, l'œil, l'oreille, le nez, la lèvre, la dent, la langue, le front, la joue, la figure, les cheveux, le cou, l'épaule, le dos, le côté, le bras, la jambe, la main, le pied, le doigt, le genou, la peau, le sang, l'os, le cœur.

Vêtements: les vêtements, les habits, le soulier, le chapeau, le gant, l'épingle, la montre, la poche, la laine, la soie, le parapluie, le trou.

Ailments: le repas, le déjeuner, la viande, le bœuf, le poulet, le pain, le beurre, le fromage, le fruit, le gâteau, le sucre, le vin, le blé, le légume, la pomme de terre, la pomme, la poire, la cerise, la prune, la pèche, la fraise.

La Famille: les parents, le père, la mère, le frère, la sœur, la tante, le neveu, le mari.

Métiers—Professions—Titres: le maître, l'ouvrier, le boulanger, le tailleur, l'hôte, le marchand, le paysan, le berger, la bonne, le garçon le cuisinier, le cocher, le facteur, l'écrivain, le médecin, l'élève, le curé, l'evêque, l'église, l'état, la guerre, la paix, le soldat, le fusil, l'épée, le roi.

Ville—Campagne: les habitants, la rue, le chemin, la route, la place, le bateau, le point, le champ, le jardin, la cour.

Édifices: l'édifice, la maison, la gare, le marché, l'école, la bibliothèque.

La Maison: le mur, la cave, l'étage, le plancher, le plafond, le toit, la pierre, le bois, la cheminée, l'escalier, la marche, la porte, la fenêtre, le coin, la chambre, la salle, le salon, la cuisine, la clef, le tapis, le meuble, la chaise, le fauteuil, le tableau, le siège, le banc, l'oreiller, le lit, la couverture, la serviette, l'assiette, la fourchette, le couteau, la cuillère, la tasse, le verre, la bouteille, la lumière, le feu, le savon, le clou, l'allumette, l'aguille, l'épingle, le fil, la chose.

École—Enseignement: la pension, l'élève, le pupicre, le tableau, le crayon, l'encre, la langue, l'histoire, le livre, la ligne, la phrase, le mot, le titre, la fin, le milieu, le cahier, la plume, le papier, la leçon, l'exercice, la règle, l'examen, la lecture, le résumé, le roman, le conte, le chanson, le journal, le timbreposte, la carte postale, le jeu.

La Grammaire: le devoir, la raison, le principe, le sens, le son, la voyelle, la consonne.

Voyage: le chemin de fer, le billet, la malle, l'argent, l'or.

La Nature: le loup, le chien, le cheval, l'âne, la vache, le bœuf, le nid, lœuf, la poule, le canard, le poisson, la mouche, l'abeille, l'arbre, l'herbe, la feuille, le bois, l'ombre, la fleur, le sable, le fer, l'acier.

Verbs:

envoyer, courir, couvrir, mourir, offrir, souffrir, dormir, mentir, partir, sentir, servir, sortir, tenir, venir, apercevoir, s'asseoir, devoir, falloir, pleuvoir, pouvoir, savoir, voir, vouloir, boire, battre, croire, dire, écrire, faire, lire, mettre, naitre, paraître, craindre, prendre, rire, suivre, vaincre, vivre, conduire, accompagner, acheter, ajouter, appeler, apporter, avaler, baigner, bâtir, brosser, cacher, casser, changer, chanter, chercher, choisir, commencer, compter, corriger, coucher, couper, coûter, crier, déchirer, dédaigner, déjeuner, demander, demeurer, se dépêcher, donner, douter, écouter, effacer, ennuyer, envoyer, épargner, espérer, essayer, expliquer fâcher, fermer, finir, goûter, grandir, habiller, habiter, ignorer, jeter, jouer, laisser, laver, lever, manger, neiger, obéir, ordonner, oser, oublier, parler, peigner, penser, perdre, pleurer, porter, promener, punir, rappeler, regarder, rentrer, renvoyer, rester, réussir, rêver, réveiller, rompre, rougir, sauver, sembler, signer, songer, sonner, souhaiter, souligner, soupirer, sucrer, tâcher, travailler, veiller, vendre.

Reading

The amount of reading done is of less importance than the accuracy with which it is done. The first line of almost any text will involve the use of the words of greatest frequency of occurrence, namely, the articles. The first paragraph will include a good share of the commoner pronouns, adjectives, and prepositions and some of the principal verbs. In twenty-five pages of almost any text nearly all the essentials of grammar are involved, and in a hundred pages a fairly good reading vocabulary. The number of pages read, therefore, is of slight importance; but thoroughness implies economy of effort, (as, for instance, in avoiding the necessity of searching many times for the same word as it reoccurs) and has a further pedagogical advantage in teaching how to read accurately. The choice of text is not so important from the language standpoint, since the commonest words and expressions will occur in all. But if a book be assigned for careful study it should be of a quality to repay serious effort. A book that appeals to a superficial or childish interest, however pleasant for casual diversion, may be very dull on careful study and frequent rereading. But in this matter the teacher should be the judge. The usual prescription of two hundred pages for two years' work should be sufficient.

The test under this heading is ability to answer pertinent questions bearing upon the meaning of a paragraph of simple, untechnical French not previously studied.

The programme which has been outlined represents a minimum that should be obtainable by experienced and inexperienced teachers alike. It names what should be studied and to what extent. It implies a minimum standard of attainment which, if enforced, would form a basis for further work in the colleges. At present no such clearly defined basis exists, since it is difficult to find any common ground among a group of students coming from high school.

In many schools it may be possible to accomplish much more than has been outlined. In the extra time the students may profit by the teacher's individual ability or ingenuity. In so controversial a field it would be

fatal to require all to follow a rigorous rule. But it is highly proper to indicate a common ground to be covered and a common minimum attainment to be secured by whatever method the teacher may choose. Likewise, in specifying the general aim of the instruction—or at least the minimum aim—there is no infringement on the teacher's liberty to give oral work and to develop any secondary aims she may think important.

READING TEXTS

The following is a report of the Committee on French Texts to the State High School Textbook Commission:

"For its selection of Reading Texts this committee was sampled with about 200 texts, 189 by actual count.

"Nearly all of these texts can be used in either first- or second-year High School French. This committee has no intention of cataloging these texts, nor of setting up an exclusive list. We feel that the matter of selecting reading texts should be left largely to the choice of the teacher. The field is almost without limit, and all publishing houses that issue French Texts issue many first-class readers.

"The following list, not intended to be exclusive, but merely a suggested list, will furnish very desirable material for first and second grade reading:

First Year

Elementary French Reader. Roux—Macmillan.
Silent French Reader. Greenberg—Merrell.
Premier Livre de Lecture. Burnay—Appleton.
A French Reader. Aldrich & Foster—Ginn & Co.

Second Year

La Tache du Petit Pierre. Mairet
La Voyage de M. Perrichon. Labiche—Martin.
Le Secret de l'Etang Noire. Dannemarie.
Le Beau Pays de France. Spink.
Supplementary Reader, First Partie. Guerber—American.
Easy Stories of French Life. From Guy de Maupassant; by W. P. Graham.
Five Easy French Plays. Simpson.

We suggest that the teachers of French supply themselves with copies of catalogs from publishers of French texts. The above list is, we repeat, merely a suggested list.

This committee would like to call attention to the following, as being very helpful material for the classroom:

Heath's *Modern Language Wall Charts.* D. C. Heath.
Bovee's *Phoenetic Cards.* University of Chicago Book Store.

Suggestions to Increase Attractiveness of Work

In answer to the question as to how the work could be made more attractive, a number of suggestions were received from the four hundred teachers to whom a questionnaire was sent. Only two points, however, were especially stressed—the need for more oral work, and for better preparation of teachers. The other suggestions involved for the most part

the use of certain pedagogical machinery in which there is at present an almost universal faith. Some of the suggestions were songs, crossword puzzles, plays, games, pictures, letters, phonetics, clubs, native speakers, etymology, elective courses, newspapers, etc.

SPANISH

Aims of Language Instruction

In answer to the question, "What should be the aims of Modern Language instruction in the high school?" the teachers of Spanish replied as follows:

> Ability to read; to broaden the student's mental horizon; to speak the language; knowledge of grammar; to interest the student to continue the study of the language; to understand simple spoken Spanish; to enlarge the vocabulary; to write the language.

The first aim, viz.: ability to read, is the most important.

In regard to making the work in Spanish more attractive and its utility better understood, the following were suggested: Spanish clubs; use of Spanish newspapers; regalia, songs, poems, lectures, oral work.

FIRST YEAR

In view of the fact that at times an attempt is made to cover too much ground in elementary language work, it is recommended, in order to stress quality rather than quantity of work, that the work of the first year of high school Spanish should be interpreted to mean only one-half to three-fifths of the work as outlined in a standard Spanish Grammar, such as those approved for use in the high schools of the State. These texts are:

1. Combination Method

Coester—*A Spanish Grammar* (Ginn).
Crawford—*First Book in Spanish* (Macmillan).
De Vitis—*Brief Spanish Grammar* (Allyn).
Espinosa and Allen—*Elementary Spanish Grammar* (American).
Fuentes and Francois—*Practical Spanish Grammar* (Macmillan).
Hills and Ford—*First Spanish Course* (Heath).
Shapiro—*Beginner's Spanish Grammar* (Univ. of N. C. Press).

2. Direct Method

Dorado—*Primeras Lecciones de Español* (Ginn).
Espinoza and Allen—*Beginning Spanish* (American).
Hall—*Poco a Poco* (World).
Hall—*All Spanish Method, Book I* (World).
Hall—*All Spanish Method, Book II* (World).
Marion and Des Garennes—*Introduction a la Lengue Castellana* (Heath).

Ordinarily this will include: Thorough drill on pronunciation from the outset and insistence on correct pronunciation throughout the year; the formation of the plural of articles, nouns, and adjectives; contractions of *de* and *a* with the article; possessive, descriptive, and demonstrative ad-

jectives, formation of the feminine, comparison of adjectives, cardinal numerals; pronouns used as subject, direct and indirect object of a verb, their position in regard to the verb, forms used as object of a preposition; regular verbs in the indicative (present, imperfect, future, conditional, preterite, perfect, and pluperfect), the distinction between *ser* and *estar*, reflexives and passives, the present tense of *tener, haber, dar, querer, poder, ir, ver, poner.*

Detailed study of the subjunctive and practice in the use of it is not recommended until the second year, although in the use of some grammars it may be found necessary to introduce the subjunctive to some extent. The use of the subjunctive as imperative, however, is almost necessary in class instruction.

Practice in dictation should be frequent so that students will readily understand Spanish words *spoken in groups.* In this connection it should be made clear that the written accent is an essential feature of Spanish spelling.

For reading, 75 to 125 pages from any of the following texts is recommended, with insistence on the use of idiomatic English in translation:

Dorado—*Primeras lectures en español* (Ginn).
Harrison—*Elementary Spanish Reader* (Ginn).
Roessler and Remy—*First Spanish Reader* (American).
Walsh—*Primero libro de lectura* (Heath).
Wilkins—*Beginners' Spanish Reader* (Holt).
Wilkins and Luria—*Lecturas faciles* (Silver, Burdett).

SECOND YEAR

At the beginning of the second year the grammar work of the first year should be carefully reviewed to be certain that the student has a complete mastery of the points of grammar mentioned above. The pronunciation especially should be reviewed and stressed through the year. Practice in dictation should be continued throughout the second year and the student made acquainted with more extended groups of words.[1] After the review of the grammar work covered in the first year the rest of the grammar should be taken up, the rules carefully explained with frequent drill, and at the end of the year an extensive review of the whole grammar is advisable.[2]

The reading of not less than 125 pages from the following texts is recommended:

Asensi—*Victoria y otros cuentos* (Heath).
Bransby—*A Spanish Reader* (Heath).
Carrion Aza—*Garagüeta* (Sanborn).
Gorostiza—*Contigo pan* (Macmillan).
Harrison—*Intermediate Spanish Reader* (Ginn).
Hatheway and Bergé-Soler—*Easy Spanish Reader* (Macmillan).
Henry—*Easy Spanish Plays* (Allyn).

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[1] The attention of Spanish teachers is called to an article in *Hispania* (Vol. VII, November, 1924, pp. 298-309) which deals extensively with the matter of words spoken in groups.

[2] It is unwise to do more than briefly explain the future subjunctive and preterite perfect (*llegado que hubo*), as the time can be better spent on more essential details.

Isaacs—*María* (Ginn).
Luquiens—*Elementary Spanish American Reader* (Macmillan).
Valera—*El Pájaro Verde.*

These books have also been selected from the Approved List. For testing and rounding out the student's vocabulary, the use of Merás y Roth's *Pequeño Vocabulario* (Heath) is recommended.

In this connection careful rather than extensive reading is expected, so that the student will see and understand the difference between Spanish and English sentence structure, the use of idioms, the use of the Spanish reflexive where the English calls for the passive, the use of the double negative, the use and meanings of *por* and *para,* inverted order ("Posible es, sin embargo, que, etc.") and in general the passages which illustrate the points already covered in the grammar work.

Upon entering college the student with two years of high school preparation will be expected to be thoroughly familiar with the following essentials:

1. Nouns:
   - Formation of the plural
   - Gender

2. Adverbs:
   - Formation
   - Comparison
   - Position

3. Adjectives:
   - Classes
     - Demonstrative
     - Possessive
     - Descriptive
   - Numerals
   - Articles (Forms, contractions, uses)
   - Agreement
   - Formation of the feminine
   - Formation of the plural
   - Apocopation
   - Position
   - Comparison
   - Translation of *than* after a comparative

4. Pronouns:
   - Subject of a verb
   - Direct object
   - Indirect object
   - Position in the sentence
   - Object of a preposition
   - Possessive
   - Reflexive, position
   - Demonstrative
   - Relative
   - Interrogative
   - Indefinite

5. Verbs:
   - Regular verbs
   - Radical changing verbs
   - Orthographical changing verbs
     - -car
     - -gar
     - -ger, -gir
     - -cer, -cir
     - -guir
     - -quir
     - -uar, -iar
     - -zar

6. The use of the personal object *a*

Reflexive verbs
The following irregular verbs: *tener, haber, ser, estar, andar, ir, venir, ver, oi, valer, hacer, decir, dar, poder, querer, saber, salir, poner, caer, traer.*
The simple tenses of the indicative
Present, imperfect, preterite (uses), future, conditional
The compound tenses of the indicative
Perfect, pluperfect
The passive voice
The subjunctive (except future subjunctive)
Its uses

7. Use of *pero, mas,* and *sino.*
8. The most common idiomatic constructions: Especially *volver a, haber de, tener, frío, hacer frío,* etc., *hay viento,* etc., *hay que,* expressions of time, *acabar de, acabar por, qustar a, tener que.*

Remarks

Two of the suggestions in this course perhaps need further elucidation —the pronunciation of individual words and of words spoken in groups. Certain sounds in Spanish present greater difficulty than others, and to these should be given more attention than to those which more nearly approximate English. The following, for example, need detailed, description of the tongue position involved and frequent practice in accuracy:

ai	b, v
e, open and close	d
ei	r, rr
o, open and close	ll
	ñ
	j

In passing from these sounds to words, the student will need to know the principles of syllabication and the effect of open and close syllables. In explaining the pronunciation of groups of words the following should be emphasized: Breath groups, sense groups, the loss of contiguous vowels (le he dicho, *ledicho*), and of consonants (con nosotros, *conosotros*). For an extensive treatment of pronunciation the teacher is referred to Navarro Tomás, *Manual de pronunciación española;* Moreno Lacalle, *Elements of Spanish Pronunciation* (Scribners); and Navarro-Espinosa, *Primer of Spanish Pronunciation* (Sanborn).

GERMAN

Aim of Instruction

At the end of the elementary course in German the pupil should be able to read at sight, and to translate a passage of very easy dialogue or narrative prose, to put into German short English sentences taken from the language of every-day life or based upon the text given for translation, and to answer questions upon the rudiments of the grammar, as defined below.

FIRST YEAR

During the first year the work should comprise:

1. Careful drill upon pronunciation.
2. The memorizing and frequent repetition of easy colloquial sentences.
3. Drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs and the more usual strong verbs; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order.
4. Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
5. The reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read. During each year at least six German poems should be committed to memory.

SECOND YEAR

During the second year the work should comprise:

1. The reading of from 150 to 200 pages of literature in the form of easy stories and plays.
2. Accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages.
3. Continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil, first, to use his or her knowledge with facility in the formation of sentences, and secondly, to state his or her knowledge correctly in the technical language of grammar.

The State approved books are as follows:

Methods

1. Combination Method

Grammars:

Bacon—*New German Grammar for Beginners* (Allyn).
Bagster-Collins—*First Book in German* (Macmillan).
Bierwirth—*Beginning German* (Holt).
Collar—*First-Year German* (Ginn).
Harris—*German Lessons* (Heath).
Wesselhoeft—*Elementary German Grammar* (Heath).

2. Direct Method

Betz and Pride—*First German Book* (American).
Crandon—*Ein Anfangsbuch* (World).
Spanhoofd—*Lehrbuch der Deutschen Sprache* (Heath).

Composition (Second and Third Years):

Bacon—*German Composition* (Allyn).
Pope—*German Composition* (Holt).

Literature (First Year):

Bacon-Vorwaerts—*A German Reader for Beginners* (Allyn).
Bierwirth and Herrick—*Ahrenlese* (Heath).
Gerstaecker—*Germelhausen* (Allyn).
Gronow—*Fur Kleine Leute* (Ginn).
Guerber—*Marchen und Erzahlungen, Part I* (Heath).
Roessler—*First German Reader* (American).
Storm—*Immense* (Allyn).

Second Year:

Foster—*Geschichten und Marchen* (Heath).
Freytag—*Die Journalisten* (Manly), (Allyn).
Goethe—*Hermann und Dorothea* (Roller), (Allyn).
Guerber—*Marchen und Erzahlungen, Part II* (Heath).
Heyse—*L'Arrabiata* (Allyn).
Schiller—*Der Neffe Als Onkel* (Allyn).
Schiller—*Wilhelm Tell* (Allyn).

MATHEMATICS

AIMS OF INSTRUCTION

It has been customary in discussing the aims of mathematical instruction to distinguish three classes of aims: (1) Practical or utilitarian; (2) disciplinary; (3) cultural, and such a classification is indeed a convenient one. It should be kept clearly in mind, however, that the three classes mentioned are not mutually exclusive, and that convenience of discussion rather than logical necessity often assigns a given aim to one or the other of the classes. Indeed, any truly disciplinary aim is practical, and in a broad sense the same is true of cultural aims.

Practical Aims. By a practical or utilitarian aim, in the narrower sense, we mean then the immediate or direct usefulness in life of a fact, method or process in mathematics.

1. The immediate and undisputed utility of the fundamental processes of arithmetic in the life of every individual demands our first attention. The first instruction in these processes, it is true, falls outside the period of instruction which we are considering. By the end of the sixth grade the child should be able to carry out the four fundamental operations with integers and with common and decimal fractions accurately, and with a fair degree of speed. This goal can be reached in all schools—as it is being reached in many—if the work is done under properly qualified teachers and if drill is confined to the simpler cases which alone are of importance in the practical life of the great majority. Accuracy and facility in numerical computation are of such vital importance, however, to every individual, that effective drill in this subject should be continued throughout the secondary school period, not in general as a separate topic, but in connection with the numerical problems arising in other work. In this numerical work, besides accuracy and speed, the following aims are of the greatest importance:

a. A progressive increase in the pupil's understanding of the nature of the fundamental operations, and power to apply them in new situations. The fundamental laws of algebra are a potent influence in this direction.

b. Exercise of common sense and judgment in computing from approximate data, familiarity with the effect of small errors in measurements, the determination of the number of figures to be used in computing and to be retained in the result, and the like.

c. The development of self-reliance in the handling of numerical problems, through the consistent use of checks on all numerical work.

2. Of almost equal importance to every educated person is an understanding of the language of algebra and the ability to use this language intelligently and readily in the expression of such simple quantitative relations as occur in every-day life, and in the normal reading of the educated person.

Appreciation of the significance of formulas and ability to work out simple problems by setting up and solving the necessary equations must nowadays be included among the minimum requirements of any program of universal education.

3. The development of the ability to understand and to use such elementary algebraic methods involves a study of the fundamental laws of algebra and at least a certain minimum of drill in algebraic technique, which, when properly taught, will furnish the foundation for an understanding of the significance of the processes of arithmetic already referred to. The essence of algebra as distinguished from arithmetic lies in the fact that algebra concerns itself with the operations upon numbers in general, while arithmetic confines itself to operations on particular numbers.

4. The ability to understand and interpret correctly graphical representations of various kinds, such as nowadays abound in popular discussions of current scientific, social, industrial, and political problems will also be recognized as one of the necessary aims in the education of every individual. This applies to the representation of statistical data, which is becoming increasingly important in the consideration of our daily problems, as well as to the representation and understanding of various sorts of dependence of one variable quantity upon another.

5. Finally, among the practical aims to be served by the study of mathematics should be listed familiarity with the geometric forms common in nature, industry, and life; the elementary properties and relations of these forms, including their mensuration; the development of space-perception; and the exercise of spatial imagination. This involves acquaintance with such fundamental ideas as congruence and similarity, and with such fundamental facts as those concerning the sum of the angles of a triangle, the pythagorean proposition and the areas and volumes of the common geometric forms.

Among directly practical aims should also be included the acquisition of the ideas and concepts in terms of which the quantitative thinking of the world is done, and of ability to think clearly in terms of those concepts. It seems more convenient, however, to discuss this aim in connection with the disciplinary aims.

Disciplinary Aims—We would include here those aims which relate to mental training, as distinguished from the acquisition of certain specific skills discussed in the preceding section. Such training involves the development of certain more or less general characteristics and the formation of certain mental habits which, besides being directly applicable in the setting in which they are developed or formed, are expected to operate also in more or less closely related fields—that is, to "transfer" to other situations.

The subject of the transfer of training has for a number of years been a very controversial one. Only recently has there been any evidence of agreement among the body of educational psychologists. It is sufficient for our present purpose to call attention to the fact that most psychologists have abandoned two extreme positions as to transfer of training. The first asserted that a pupil trained to reason well in geometry would thereby be trained to reason equally well in any other subject; the second denied the possibility of any transfer, and hence the possibility of any general mental training. That the effects of training do transfer from one field of learning to another is now, however, recognized. The amount of transfer in any given case depends upon a number of conditions. If these conditions are favorable, there may be considerable

transfer, but in any case the amount of transfer is difficult to measure. Training in connection with certain attitudes, ideals, and ideas is almost universally admitted by psychologists to have general value. It may, therefore, be said that, with proper restrictions, general mental discipline is a valid aim in education.

The aims which we are discussing are so important in the restricted domain of quantitative and spatial (i.e., mathematical or partly mathematical) thinking which every educated individual is called upon to perform that we do not need for the sake of our argument to raise the question as to the extent to transfer to less mathematical situations.

In formulating the disciplinary aims of the study of mathematics the following should be mentioned:

1. The acquisition, in precise form, of those ideas or concepts in terms of which the quantitative thinking of the world is done. Among these ideas and concepts may be mentioned ratio and measurement (length, areas, volumes, weights, velocities, and rates in general, etc.), proportionality and similarity, positive and negative numbers, and the dependence of one quantity upon another.

2. The development of ability to think clearly in terms of such ideas and concepts. This ability involves training in:

a. Analysis of a complex situation into simpler parts. This includes the recognition of essential factors and the rejection of the irrelevant.

b. The recognition of logical relations between interdependent factors and the understanding and, if possible, the expressions of such relations in precise form.

c. Generalization, that is, the discovery, and formulation of a general law and an understanding of its properties and applications.

3. The acquisition of mental habits and attitudes which will make the above training effective in the life of the individual. Among such habitual reactions are the following: A seeking for relations and their precise expression; an attitude of inquiry; a desire to understand, to get to the bottom of a situation; concentration and persistence; a love for precision, accuracy, thoroughness, and clearness, and a distaste for vagueness and incompleteness; a desire for orderly and logical organization as an aid to understanding and memory.

4. Many, if not all, of these disciplinary aims are included in the broad sense of the idea of relationship or dependence—in what the mathematician in his technical vocabulary refers to as a "function" of one or more variables. Training in "functional thinking," that is, thinking in terms of relationships, is one of the most fundamental disciplinary aims of the teaching of mathematics.

Cultural Aims—By cultural aims we mean those somewhat less tangible but none the less real and important intellectual, ethical, esthetic or spiritual aims that are involved in the development of appreciation and insight and the formation of ideals of perfection. As will be at once apparent, the realization of some of these aims must await the later stages of instruction, but some of them may and should operate at the very beginning.

More specifically we may mention the development or acquisition of:

1. Appreciation of beauty in the geometrical forms of nature, art, and industry.

2. Ideals of perfection as to logical structure; precision of statement and of thought; logical reasoning (as exemplified in the geometric demonstration); discrimination between the true and the false, etc.

3. Appreciation of the power of mathematics—of what Byron expressively called "the power of thought, the magic of the mind"—and the rôle that mathematics and abstract thinking, in general, has played in the development of civilization, particularly in science, in industry, and in philosophy. In this connection mention should be made of the religious effect, in the broad sense, which the study of the permanence of laws in mathematics and of the infinite tends to establish.

The primary purposes of the teaching of mathematics should be to develop those powers of understanding and of analyzing relations of quantity and of space which are necessary to an insight into and control over our environment and to an appreciation of the progress of civilization in its various aspects, and to develop those habits of thought and of action which will make these powers effective in the life of the individual.—*Bulletin No. 32, 1921, The Reorganization of Mathematics in Secondary Education.*

THE CLASSROOM

High schools which promote by subject rather than by grade—and this should include all of them—should have a separate classroom for every field of instruction offered. Instead of the traditional practice of teachers changing classrooms at the end of each recitation period the pupils should change. Where such a system prevails there is no needless duplication in classroom equipment. On the other hand, each room may be supplied with those materials which are necessary for the teaching of any particular subject. At any rate, there should be in every high school a classroom of the laboratory type designed and equipped especially for the teaching of mathematics, and in this room or in other such rooms all of the mathematics should be taught. It should contain at least 150 square feet of good blackboard (slate, if possible), eighteen yard and meter sticks, a supply of rulers with handles, one dozen each of wooden protractors and compasses, T squares, thumb tacks, bulletin board, mathematics periodicals, one subscribed to and another edited by classes, drawing paper, graph paper, colored crayons, scissors, all kinds of pasteboard triangles and polygons (made by pupils), lumber for board feet exercises, blank forms of checks, deposit slips, drafts, notes, mortgages, bonds, insurance policies, and financial statements.

SUGGESTIONS ON IMPROVED METHODS

1. Lesson assignments and the teaching method should be suited to the individual differences of the pupils.

2. Each new topic taken up in any branch of mathematics should be made to tie up as nearly as possible with life situations, i.e., illustrate percentage in arithmetic with a baseball player's batting average.

3. In introducing new subject matter the teacher should assist the pupils in separating the known from the unknown.

4. Pupils should be taught the need of applying previous exercises and theorems to the one they are working.

5. Pupils should be taught to interpret and check results for each solution.

6. Continued classroom drill on the fundamental theorems, formulae, and tables should be practiced.

7. Economical methods should be stressed.

8. In assigning next day's lesson enough explanation of it should be given in order for the pupils to be able to attack it successfully.

9. Have many mental processes but little recording.

10. Operate on the principle that "Nothing succeeds like success."

11. Examination questions should not be ranked equally unless they are of equal difficulty—analysis showing the number of steps in the solution of each will reveal the relative difficulty.

12. Standard tests should be used when needed. The following Geometry tests are suggested:

Rogers's *Prognostic* Test—forecasts probability of success in Geometry. (Address Dr. Rogers, Goucher College, Baltimore, Md.)

Minnick's *Diagnostic* Test—determines where the individual weaknesses are. (Address Dr. J. H. Minnick, University of Pennsylvania, Harrisburg.)

Sanford-Schorling *Achievement* Test—gives educational age. (Address Mr. Raleigh Schorling, Lincoln School, Columbia University, New York City.)

Thirstone Vocational Guidance Test (the Geometry part). (Address World Book Co., Yonkers, N. Y.)

Algebra Tests.

Diagnostic—Rugg-Clark Test. (Address World Book Co., Yonkers, New York.)

Achievements: Hotz First Year Algebra Scales. (Address World Book Co., Yonkers, New York.)

BOOKS AND MAGAZINES

Teachers of high school mathematics can get much value from the following books:

Young, J. W. A.—*The Teaching of Mathematics.* Longmans, Green & Co.

Schultze, Arthur—*The Teaching of Mathematics in Secondary Schools.* The Macmillan Co.

Otis, Arthur S.—*The Statistical Method.* World Book Co., Yonkers, New York.

Judd, Charles H.—*The Psychology of High School Subjects, Chs. I-VI.* Ginn & Co.

Bureau of Education, Bulletin 1921, No. 32 (10c).

The Reorganization of Mathematics in Secondary Education. Address Supt. of Documents, Washington, D. C.

Mathematics Teacher (8 Mos. each year, $2.00, includes membership in National Council of Teachers of Mathematics). Address J. A. Foberg, State Department of Public Instruction, Harrisburg, Pa.

High School Manual, Educational Publication No. 134. Division of School Inspection No. 36, State Dept. of Public Instruction, Raleigh, N. C.

THE SUBJECT MATTER

All courses in high school Mathematics should be constructed on principles of social worth and disciplinary value. Several textbooks now in use have not been so organized. Such topics as synthetic division, extracting cube roots of polynomials and the memorization of countless impractical formulæ should be entirely abandoned. No material should be taught which cannot be defended either on a basis of social worth or on the probability of relatively worth-while thought power.

OUTLINE BY YEARS

First Year

First Semester: Arithmetic

The following topics should be taken up week by week as indicated below with the approximate length of time to be devoted to the subjects as suggested. In some cases it will be wise to use a greater or lesser amount of time on any given topic than is here suggested.

Week	*Topic*
1	Drill in the reading and writing of figures and numbers
2	Review Addition
3	Review Subtraction
4	Review Multiplication
5	Review Division
6	Study all four fundamentals in their relationship to each other, giving considerable drill work in fractions. Point out by example the great similarity of these fundamentals.
7-9	Percentage, Thrift, and Investment.
10-11	Mercantile Arithmetic
12	Corporation Arithmetic
13-14	Arithmetic of the Bank
15	Study of the Reviews found at the end of the various chapters or give additional problems according to the pupils' needs.
16	General review of problems selected from various texts and examination.

Teachers should require pupils to keep notebooks in which a few problems, under each topic should be definitely outlined under the headings *given, find,* and *solution.*

Second Semester: Beginner's Algebra

Week	*Topic*
1-3	Introduction Literal Numbers Positive and Negative Numbers
4-5	Addition and Subtraction of Algebraic Expressions at least eight or ten original problems should be solved by the pupil during this period.
6-7	Parenthesis Eight original problems Review addition, subtraction, and parenthesis

8-10	Multiplication
	Fifteen or more original problems
11-16	Division
	Special Products and Factoring
	Final Review
	Examination

Second Year

First Semester: Algebra

Week	*Topic*
1-2	Review First-Year Algebra
3-5	Fractions
6	Ratio, Proportion, and Formula
7-8	Simple Equations and Graphical Representation
9-11	Simultaneous Linear Equations
12-14	Powers and Roots
15-16	Review and Examination

Second Semester: Algebra

Week	*Topic*
1-4	Exponents and Radicals
5-11	Quadratic Equations
12-13	Review Through Quadratics
14	Binomial Theorem
15-16	Review and Examination

Attention is called to the fact that requirements for graduation from a standard high school include only one and one-half units of Algebra. It is very clear that two years of Algebra cannot be given in one and one-half years. However, as indicated in the outline, if some of the less important topics are omitted, a student will be able to complete Algebra through quadratics and the binomial theorem in one and one-half years. If Algebra is begun in the second semester of the first year, and continued through the second year, the necessary amount of Algebra can be completed in the one and one-half years.

Attention is also called to Geometry. This subject is offered as an *elective* in the third year. Students should not be required to take this subject but those who need it to meet college entrance requirements should elect it.

Third Year

First Semester: Plane Geometry

The pupil's knowledge of Algebra should be brought to bear upon the work in Geometry. Ample time should be taken to introduce the pupil to the subject of Geometry. This is time well spent. Propositions I, II, and III should be treated thoroughly and their applications made. The remainder of the first semester's work will include the propositions of Books I and II.

Second Semester: Plane Geometry

This semester's work will include Book III, Proportion and Similar Polygons; Book IV, The Areas of Polygons; and Book V, Regular Polygons and Circles.

Fourth Year

FIRST SEMESTER: SOLID GEOMETRY

It may be advisable in some instances to take up Solid Geometry. If so, the work should include the usual theorems and constructions, including the relations of planes and lines in space; the properties and measurements of prisms, pyramids, cylinders and cones, the sphere and the spherical triangle. Emphasis should be placed upon the demonstration of original propositions. Numerous problems should be solved until the student acquires facility in this work. Local problems should be emphasized. Stress should be placed upon the application of principles to the measurement of surfaces and solids.

SECOND SEMESTER: ADVANCED ALGEBRA

The work of this semester would include permutations and combinations limited to simple cases. Complex numbers with graphical representation of sums and differences. Determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations, numerical equations of higher degree, and so much of the theory of equations, the graphical methods, as is necessary for their treatment, including Descartes's *Rule of Signs*, and Horner's *Methods*, but not Sturm's *Functions of Multiple Roots*.

SCIENCE

INTRODUCTION

Since the introduction of the sciences in our public school curricula there has been a gradual but marked change in the sentiment both as regards the laity and the teaching public toward those courses.

Time was when the sciences were looked upon as a substitute course for those students who, either through lack of native ability or mental inertia could not keep pace with the classical subjects. But today we find science established in its rightful place among what are termed the cultural subjects. This early attitude regarding science is doubtless responsible for the diversity of content of subject matter and methods of presentation of the science courses in the majority of our public schools, until today there is felt a need for a more perfect unification and coordination of these courses.

In attempting to work out the course of study asked for, *the committee in no way sought to formulate an outline that should be rigidly followed.* However, without some organized plan there is grave danger of the teacher's developing that phase of the subject in which he is particularly interested. It is well recognized that the teacher should be given as much freedom as possible to adapt his course to his local conditions.

The selection of topics to be discussed and laboratory problems of the sort that will both stimulate and sustain the interest of the boys and girls and at the same time develop a knowledge of the basic principles underlying the sciences rather than present a haphazard array of data that would result only in confusion has long been a question in the minds of many teachers.

In the formulation of the courses of study which follow no formal committee was chosen but suggestions and criticisms were sought from more than fifty sources including high school teachers throughout the State, college professors, North Carolina state boards of health and public instruction, and more than twenty states as well as National reports of both Great Britain and the United States.

Conferences were held by groups who could conveniently assemble.

Certain general aims or objectives are applicable to and should be emphasized in all the sciences. These objectives are stated elsewhere in this report while those relating to the specific sciences are found at the beginning of the special outlines.

The report does not attempt to cover all types of high schools in the state, but rather to meet the needs of the average four-year plan with the idea that the smaller and larger schools will make adjustments peculiar to their individual needs.

It is recommended that General Science, Biology, General Chemistry, and General Physics constitute the four basic courses in the larger schools, and that Physical Geography, Commercial and Industrial Geography be offered in the third year in small schools in keeping with the program suggested in "High School Reorganization." In the larger high schools a year of Botany, and a year of Zoölogy may be taken in place of a year in Biology or a year in Biology and a year in human physi-

ology with emphasis upon first aid and home nursing might be considered a good plan. In all science courses it is recommended that two double periods be devoted to laboratory work and three periods to discussion, recitation or quiz work, each recitation period being forty-five minutes in length. Where a school is organized on a sixty-minute basis, five periods a week should be allotted for the work and two of these should be consecutive periods.

In general it is believed that a logical sequence of courses should be followed. It is well recognized by those who have made a careful study of the educational problems that in any field of learning a more comprehensive grasp of any subject is derived if the course is planned as a whole and if the separate courses are made to follow fundamental principles of sequence. In all courses of study the progressive development of the pupil is essential. In carrying out the above, however, a certain unity of the separate courses should be maintained so that the student may receive a maximum of benefit even though no further science is taken.

Sequence of Courses

The sequence recommended is as follows:

First Year—General Science—It is strongly recommended that this course be required of all students. It is an introductory course and should not follow any other science; neither should it be given above the freshman year.

Second Year—Biological Science, including human physiology, is considered the best second year course. It is the time in the child's life when he is keenly alert to the whys and wherefores of life, and thus Biology furnishes a medium by which he finds an answer for himself to his questions about the phenomena of life. Courses may consist of General Biology, Botany or Zoölogy in the larger schools. Some Biological science should be required of all students.

Third Year—Chemistry is generally regarded as the logical third year course, except in small high schools in this State where Physical Geography, Commercial and Industrial Geography are offered. This course in chemistry should emphasize many of the practical problems of the home, the farm and industry. Chemistry is offered as an elective in the third year in six-teacher schools. (See Bulletin High School Reorganization.)

Fourth Year—Physics being of a more advanced nature should fall in the fourth year. The powers of accurate observation and logical deductions having been developed through the preceding sciences the student naturally brings to the course a more mature judgment which enables him in return to derive more from the course. Neither Physics nor Chemistry should be taught below the junior year, or should the student be permitted to take either without having completed at least one science.

Many students do not consider it essential that they have a detailed knowledge of Physics but at the same time desire to complete four years of science. To these students elective courses in botany, zoölogy, physiology or some special field of chemistry should be open in large schools. All such courses should be of an advanced type so as to avoid repetition of the former sciences studied. A more intensive study of the general

principles established in the elementary courses should constitute the content of such studies. In some of the smaller high schools where both Chemistry and Physics are given it has been suggested that these courses be alternated and given one each the junior and senior years.

The Laboratory

The establishment of laboratory work in our modern school systems marked the emancipation from the rigidly disciplined school room of earlier days, and made a strong appeal to the average student. The results have been varied and there is a general feeling that the laboratory method has not accomplished all that was expected of it. At the present time *it is* this phase of the work that represents the greatest pedagogical difficulty. No innovation of modern education, however, can be as vitalizing to learning as the laboratory method. It has been truly said that "Often, very often, the dunce of the form when put on to practical work becomes brilliant." The laboratory might rightly be called the science student's work shop, but too often it is allowed to degenerate into a place of mere idleness and aimless activity with little accomplished, whereas it should be the place where the student receives his first hand knowledge. "The nature of every science demands that it be taught from the laboratory standpoint," and thus center about experimental and project work rather than pages of a textbook. To this end it is desirable that the laboratory work in general precede the textbook assignment.

It seems needless to say that the laboratory and textbook work should proceed hand in hand and yet there are many instances where there is little or no correlation between the two. The fundamental aim of the laboratory is to give the student a chance to make his own observations and arrive at logical conclusions. He may be aided in these by laboratory guides which follow the question method, or by preliminary explanations from the teacher. The latter should assist only to the degree that the student shall not work blindly or aimlessly at the problem at hand.

In all sciences the equipment of the laboratory is a vital matter. At least one room must be adequately equipped even in a small high school.

The Notebook

The day of the pretty notebook is past. There is such a bulk of material to be investigated that the great problem of the science teacher today is to "simplify the courses so as to complete them in the time at his disposal." There is much to be gained, however, from the standpoint of the pupil if he record accurately his observations and derived conclusions. A simple outline that is frequently followed is: First, the student should state accurately the problem that he is trying to solve. Second, that he record briefly his procedure and observations. In this the student should be encouraged to develop his own ingenuity in the manner in which the record is made. Necessary outline drawings should accompany all problems. These should be neatly and accurately labeled with a medium hard lead pencil and lettered. The drawings as well as the notes should serve as a source of excellent review for examinations.

For Chemistry and Physics the notebook record might better be arranged under the following headings: object, procedure and observation, results, conclusions and discussions. The type of notebook for General

Science and Biology is a simple inexpensive loose-leaf one. For Chemistry and Physics there are printed forms that usually follow the text used.

Students should be encouraged to take a part in the preparation of materials and the general upkeep of the laboratory. In fact, the teacher should prepare only those materials that the immaturity of the class makes necessary. Teachers often sacrifice interest by themselves doing too much preparation before the class has assembled.

Classroom and Recitation

With the laboratory organized on the problem-project plan the recitation takes on a different form from the stereotyped method of former days when it consisted of a mechanical repetition "of facts and principles gleaned from a textbook." The recitation should consist of classroom discussions in which all students contribute to the explanation and correlation of those phenomena observed in the laboratory and on field excursions. Above all the classroom, like the laboratory, should belong to the student. Too often the teacher is the dominant personality, whereas he should remain in the background as a guiding influence in aiding the students to arrive at the proper conclusions. There is a grave tendency on the part of many teachers to teach too much.

The need of a text is recognized but it should be regarded as a reference book rather than one from which so many pages are assigned every one of which must be learned. Often "A better plan is to provide several copies of the more important texts and a number of reference books to which assignments may be made. It is extremely important that such assignments should be definite and clear to the pupil." Librarians report this a common fault among teachers. As pointed out in the National Bulletin on Reorganization of Science "Few things are more discouraging to the pupil or more destructive to his interest than to be given hazy assignments, and to feel that neither he nor the teacher knows exactly what is expected."

Many demonstration experiments may be effectively performed in the classroom by the teacher to save time in the main laboratory. In such experiments the help of the students should be enlisted. For instance, weighing materials, measuring liquids, time keeping, and numerous errands to the stockroom, can be done by the students and thus arouse as much interest as individual experiments. Such demonstrations have the value of giving the teacher an opportunity to acquaint the student with the proper laboratory technique of the course. In this teachers should exercise great care in performing the experiments skillfully. This latter principle might well apply in the laboratory when assistance from the teacher is necessary. Pride in exercising the proper technique in the course on the part of the teacher will do much in creating the desired atmosphere in both laboratory and classroom.

Much interest can be stimulated in the classroom as well as in the course as a whole, if students are encouraged to make special reports, especially those relating to the economic phases of the course. Biographies of men and women who have made noteworthy contributions to scientific progress constitute excellent material for such reports.

Many pupils will enjoy working out some individual problem of their own choosing or one suggested by the teacher. Such work often leads

to solving the greater problems and even the choosing of a vocation to which the individual is permanently adapted. Extra credit should be given to those students doing special work according to the value and the nature of the work presented. These special reports can often serve the basis for a monthly or term English theme or history paper and thus help to bridge a gap so universally present in all of our institutions of learning, that of coöperation and coördination between the various curricula.

Respectful attention by other members of the class is easily maintained if the students know that when a student's report is completed some member of the class will be called upon to outline briefly the major points emphasized.

Field Trips

Field trip work, like laboratory work, is a result of modern education. Like the laboratory, it too can be the source of much wasted time if not properly planned and supervised. The teacher should know well the field into which he is going. In fact he will save himself the possibility of embarrassment if he will conduct his own individual field trip before taking the class.

The field trip can be made a very valuable part of the work if properly planned. It is the medium by which the phenomena observed in the laboratory are connected up with every day life.

The nature of the field trip will naturally vary with the locality, but, in general, industrial plants, city water works, the weather bureau, museums of natural history, a nearby stream, lake, or wooded lands afford excellent places for this type of work.

The student should be urged to carry a pocket notebook where he can jot down the important points covered on the trip, and these should be included in the class discussion, permanent notebook records, and examination reviews.

Science Clubs

The organization of science clubs is a positive agency in furthering interest in the sciences. The clubs should be organized with officers similar to any civic organization. Programs may consist of talks and demonstrations by the students of the facts which they have learned from the various contacts of the course, magazine articles, book reviews, etc. Many schools have the advantage of being located in localities where colleges and large industrial concerns are located. These institutions employ men eminent in many fields of science who are glad to come in contact with the boys and girls by giving talks before the club.

Examinations

Along with the changes in content and presentation of subject matter there has, likewise, been a change in our ideas regarding the examination, that agency which serves as a measure by which the teacher gains a more accurate conception of what the student is really deriving from the course as it is being presented. The nature of the content of science does not permit of the discussional type of examination as do for instance English and history. Even in these subjects the immature student is too apt to ramble into vague and irrelevant reasonings which for the

most part are subjective rather than objective, and therefore not reliable. In many fields of learning the standardized tests are supplanting the traditional essay type, and these tests must be passed before entrance into many of our American universities and colleges can be obtained.

Standardized tests in the sciences have not been thoroughly worked out but the science teacher can and should work out questions that are based on the following types of examinations:

First—The True False Test, which is made up of a number of true and false statements with some method devised by which the students indicate which is true and which is false.

Second—The Judgment Test. This test is made up of a list of statements which are true, but the student must give reasons why they are true.

Third—The Completion Test. In this test statements are given with certain keywords omitted and the pupil fills them in.

Fourth—The Association Test, which is made up of a list of keywords or ideas. The students take these and with a few brief but true statements explain the scientific phenomena in which they are involved.

Fifth—The Selection Test. This test is made up of two lists of statements. The students take the statements in list number one and match them with the proper statements in list number two, indicating by letters or figures in the margin of list number one the statements with which they were matched in number two.

Suggested Plan of the Teaching Unit

Steps in the learning process:	*Steps in the teaching technique:*
(a) Stimulus Recall of experiences Self-activity exercises	(a) Introduction through story, discussion, questions, reading, exercises, lectures, demonstrations, display charts, display of materials, etc.
(b) Study for the purpose of seeing the problem clearly	(b) Pre-view by teacher Sketch of teaching unit Testing the viewpoint of pupil Direction of study
(c) Reflective thinking Observation Comparison Interpretation Testing hypotheses	(c) Supervised study Reading, experimentation, projects, field trips, trial exercises, etc. Class discussions, testing-performances, etc.
(d) Reaction	(d) Organization and expression Seeing the unit as a whole Expression—oral and written
(e) Use of knowledge in new situations	(e) Problem questions and exercises

How Man Uses Electricity For Communication

(a) Introduction:
The need of rapid means of communication.
Discovery of the telegraph and telephone—Morse and Bell.
Service of these inventions, social and commercial.
(b) Discussion of experiences, questions, and exercises.
(c) "What is needed to send messages by means of electricity?"
(d) Supervised study of related problems:
How does the telegraph work?
What makes the doorbell ring?
How does the telephone operate—receiver and transmitter?
How can you make a simple wireless telegraph sending set?
How does a simple wireless telegraph receiving set work?
Construct a crystal-detector set.
(e) New situations:
The telephone exchange.
The home telephone.
Electric bell circuits.
Vacuum tube sending and receiving sets.
Oceanic cables.
Construction of simple electric apparatus.
Relation of newspapers to telegraphic communication.
Markets, train dispatching, financial exchange, etc., to telegraphic communication.
Social development and the telephone.
Dissemination of information and the wireless telephone.

Aims of Science with Reference to Main Objectives of Education

(1) *Health*—The power of a nation is dependent to the degree in which it is able to prevent control and eliminate disease. It is the duty of secondary education to instruct all pupils in the necessity of the provision of adequate hospital facilities, medical inspection and the maintenance of public health and public sanitation.

(2) *Worthy Home Membership*—There is scarcely an activity within the home which does not find its explanation within some of the far-reaching laws of science. The heating, the lighting, the clothing, the food, and interior decoration embody scientific phenomena. Science teaching should acquaint the students with these facts to the end that they may contribute to the responsibilities of the home.

(3) *Vocational*—Science teaching should open up the many fields of learning upon which the activities of the world are based and these should prove of distinct value in the choosing of a life profession.

(4) *Citizenship*—The welfare of society moves along with the advance of science. It is essential, therefore, that the members of society be familiar with the part science has to play in the maintenance of a peaceful and contented people in order that they may appreciate the work of the agencies and individuals that promote them.

(5) *Useful Leisure Time*—Nature is boundless in her storehouse of wonders. It is the province of science teaching to unlock the doors to these many wonders and thus extend the horizon of natural interests.

The individual will attain to that large breadth of outlook and sympathy with all classes of natural things, which definitely characterize the person of real culture.

(6) *Ethical Character*—Nothing can exceed the experience in science in developing in youth ideals of truth and veracity. In the most elementary science lessons the student realizes that the whole aim of the work is to discover and possess the truth about the thing or the experiment. The training he gets in straight and honest thinking is the utmost importance to him in helping him arrive at the truth which he is to personally possess. The contribution science makes to the upbuilding of high ethical character is perhaps its greatest one.

Visual Instruction

Visual instruction is recognized today as an important factor in modern education. A few statements regarding the subjects treated and the sources from which films may be procured are given herewith. The best source for obtaining detailed information regarding types and cost of motion picture machines, fire insurance regulations, etc., is your State Department of Public Instruction. This department has tested out several types of motion picture machines and is in a position to give valuable information as to the best ones to purchase. Money can be saved by securing the service of this department in the purchase of machines and films.

The lack of funds is no longer an excuse for a school's not having a motion picture machine of some kind. Very often the school is the community center, and interest in purchasing a machine can be aroused in various ways. The state department points out some methods by which funds have been secured. They are:

By putting on a weekly picture entertainment and charging an admission fee of 10c. In this way, in a short time, enough money may be taken in to pay for a machine. After the machine is paid for, a steady income may be realized with which to purchase other school equipment, not otherwise provided for.

One school, in eighteen months, paid for the machine and screen, bought shrubbery for the school grounds, a number of books for the library, a set of lantern slides, which cost $290 and had a balance of $700 in the bank.

In some communities, Parent-Teachers' Associations lend the money with which to buy the machines. In other places the patrons of the school advance the money, with the understanding that it will be paid back as soon as receipts from entertainments amount to the purchase price of the machine. In some other cases the school authorities lend the money out of the general fund, and the money is paid back from the receipts from the entertainments. In one community 106 patrons lent money, in amounts varying from 50c to $10, with which to purchase their machine.

The State Department of Public Instruction has enough films on hand to give one entertainment of a 6- or 7-reel picture per week for 215 weeks. New films are constantly being bought in order to increase this service.

Comparatively few of the films are special science films, but are for general use and would serve well for such purposes as mentioned above. The small number of science films is due to two reasons: first, the high price of such films; and second, the lack of demand on the part of science teachers. If the science teachers would create enough demand for any certain type of film the State Department of Public Instruction might be able to get funds sufficient to buy the kinds of films desired. A few years ago the State Department had for demonstration purposes a picture on the blood showing the complete circulation, structure of veins and arteries, origin of corpuscles, etc. This film should be shown to every school boy and girl, but due to the small demand for it the film was not purchased.

Other sources where films can be obtained at little or no cost are:

The U. S. Department of the Interior, through The Bureau of Mines, Pittsburgh, Pa., supplies a number of industrial films, such as, The Story of Petroleum, Mexico and Its Oil, Story of Coal, Storage Battery and a number of other subjects. The International Harvester Co., The U. S. Department of Agriculture, The General Electric Co., The Ford Motion Picture Laboratories, and other industrial concerns have pictures which can be had, some for cost of transportation, while there may be a little rental charge on others.

It is hoped that the science teachers will see the value of this type of education and create a unified effort to have available such films as would enhance science instruction.

GENERAL SCIENCE

This course in natural science is too general to take the place of any of the special sciences. It should prove to be the best course for giving general information of the elementary science courses. It is particularly designed to teach the child the "hows" and "whys" of his environment, thus enabling him to make a practical application of the laws of nature in his every-day life.

Specific Objectives for General Science

To help the pupil to interpret and appreciate his environment.

To encourage the pupil to form accurate habits of observation and expression.

To awaken the science interests and abilities of the pupil so that he will continue his studies in science through high school.

To discover science interests so that the pupil may do better work in the later vocations.

To develop in the child who can take only one course in science, an abiding active post school interest in an understanding of science.

To fit the pupil for citizenship by aiding him to acquire good health habits, a better home environment, and, a more desirable community life.

To stimulate in the pupil who has a scientific inclination a desire to accomplish something worth while in the scientific field.

Method

The course in general science is divided into several well defined units. The pupil should be led to see the unit as a whole, and to relate its subdivisions to the whole, thereby aiding him to organize his experience so that it will be usable. The various units that compose the course should be so objectified and practicably applied to the life of the child as to make the subject vitally interesting and useful in the pupil's every-day life.

While the units are closely correlated in the text the order in teaching the units should be arranged to fit the locality and seasons, however, the teacher should strive to maintain a coherent sequence of different topics so that each topic may aid in developing succeeding topics.

Five general types of work are outlined in the course:

I. The specific topics of course should be developed by the aid of text-book, reference books, magazines, etc.

II. Observational exercises to train the sense of perception, as field trips to study the Pasteurization of milk; work of the weather bureau; manufacture of ice; the city water supply; constellations, erosion and soil formation; common wild flowers; cross pollination; seed distribution; to recognize common trees; to study tree contour; and to study the struggle for existence in the living world, and a number of other observational exercises may be planned as suits the locality.

Two important points should be emphasized in observational work. The group should not be too large, sixteen to twenty being a large observational group, and the group must know definitely what they are to look for, and should be required to give a report of their findings.

III. Experiments and investigations, as demonstration problems, should develop the power of accurate observation and an ability to draw correct conclusions by the scientific method. These conclusions should be applicable in solving new problems that may arise in the life of the child. The experimental work should be the basis of the unit and the other work should be built around it. In all demonstration work whether done by the individual or the group several definite steps should be carried out.

(1) There should be a clear statement of the problem to be solved.
(2) What was done should be simply and clearly described.
(3) What happened should be carefully noted.
(4) The reason for the results should be determined.
(5) A general conclusion should be drawn from the problem.
(6) Each conclusion drawn when possible should be related to the every-day life of the child.
(7) In all demonstration and topic work throughout the courses causal relations should be emphasized so that the pupil may know that law rules and that every effect has a cause.

The notebook in which the experiments are recorded should be accurately, neatly, and promptly kept.

IV. Constructive problems. These problems are projects to be worked out by the pupils using the knowledge they have already obtained to solve some larger problem of every-day life. The problem does not necessarily have to come within the course of study, however unrelated problems should be avoided. The teacher must use her discretion as to when a

problem should be recognized, and when a problem is recognized she must guide the group in the selection of data for its solution. A small group of four or five will work most efficiently on this type of problem.

V. Individual observational work. This work comes through the experience of the child and enriches the topic and experimental work. Some time should be taken at convenient intervals (perhaps at the beginning of the recitation) for their discussion as it will stimulate interest and promote an awareness of natural phenomena. Through directed observational work the pupil will acquire definite first-hand information for attacking future problems that may arise. Following are some helpful points:

(1) Observations should always be timely.
(2) Directions for observations should be practical and specific.
(3) Pupils should be required to make accurate reports of observations. "Hit or miss" work should not be allowed.
(4) The report should be followed by questions which will stimulate the pupil to draw an inference.
(5) The drawing of such inferences should be repeated until the investigating habit of mind is formed, developing in the pupil the scientific method of procedure.

Selection and Organization of Subject Matter

The subject matter of the course is based largely upon the child's environment; therefore, the content of the course should vary with the community in which it is taught. It is evident that many of the problems and inerests of urban and rural communities are different; therefore, the course of study should be supplemented or curtailed until it fits the needs of the pupils. Following are some suggested topics:

The Course of Study

UNIT I

THE AIR AND HOW WE USE IT

I. The Air a Real Substance.

Air is a material. Air has weight. Compressed air. Exhaust pump. Air pressure. Barometers. Air pressure on the human body. Source of sound. Air transmits sound. Echo. How we hear.

II. Air and Fire.

A fire needs air. Burning decreases oxygen. Oxidation. Kinds of oxidation. Effect of heat on solids, liquids, and gases.

Measurement of temperature. Transfer of heat, fuels, flames, matches, cooking devices. How our homes and public buildings are heated. Fire prevention. Extinguishing fires.

III. The Atmosphere.

Ocean of air around the earth. Altitude and air pressure. Balloons, and aeroplanes. Composition of air. How air is kept in balance. Moisture in the air and its relation to our comfort. Evaporation. Condensation. Weather and climate.

IV. Good Air and Breathing.

Why air is necessary to life. Breathing. Dust, mold, yeast, and bacteria. Methods of keeping down dust at home and in the streets.

UNIT II

WATER AND ITS USES

I. The Three Forms of Water and Uses We Make of Them.

Ice, water, steam and effects temperature has on them—Distillation, cooling effects of evaporation. Ice machine. Cold storage, refrigerators, freezing mixtures.

II. Household and Industrial Uses of Water.

Water a necessity of life. Human body needs water. Sources of drinking water. Pollution of drinking water. Water supply systems. Lift pump, force pump and siphon. Sewage disposal, streams. Dams. Water power.

III. Water and Its Influence on Climate.

Water and land temperature.

Land and sea breezes. Causes of unequal heating of land and water.

UNIT III

NATURE'S STORE OF ENERGY AND MAN'S MEANS OF CONVERTING IT TO HIS SERVICES

I. How We Work.

Man's work and his need of tools. The basic machines. Friction and how to reduce it. Measurement of work and energy. How the work of the world has been affected by machines.

II. Energy—Its Conservation and Transformation.

Sources of energy. Nature's storehouses of energy and need for conserving them. Energy can be transformed. Kinds of energy. Some of the important machines for transforming energy—steam engine and gas engine.

III. How Man Uses Electricity.

Correct wiring and illumination of our homes. How an electric light gives light. Heating devices. Magnets and compasses. Electromagnets. Telegraph. Telephone, Radio. Motor and its uses. Sources of current—dynamo, dry cell and storage cell.

UNIT IV

THE EARTH AND ITS RELATION TO OTHER ASTRONOMICAL BODIES

I. The Sun and Seasons.

How air around earth is warmed. What causes day and night, the year, and seasons. Standard time. Daylight saving. The sun, its size, distance from the earth, heat, and composition. Sun—the source of energy.

II. Light.

Natural and artificial lights. Nature of light. Human eye. Conserving eyesight. Refracted light. Reflected and diffused light. Color. Rainbow. Transparent, opaque, translucent objects.

III. The Solar System and the Constellations.

The sun in its relation to the planets. Interesting facts about each planet. The moon, its light, size, distance from the earth, surface, and climate. Phases of moon. Tides. Comets. Constellations.

UNIT V

The Surface of the Earth

I. How Rocks Become Soil.

Work of plants, animals, water, ice, wind, and air in soil formation. Glaciers. Fertile soil. Kinds of soil. Loss of nitrogen from the soil. How to supply nitrogen to the soil. The significance of the soil.

II. Soil, Water, Drainage, Irrigation and Erosion.

Water cycle. Plants and soil water. How water rises in soil. How to save moisture in the soil. Soil water and soil temperature. Reclaiming our swampy and desert regions. Loss of soil by erosion. Vegetation and erosion.

UNIT VI

Life Upon the Earth

I. The Plant Covering of the Earth.

Abundance of plants. Plant associations. Tree contour. Value of wild plants. Forest conservation.

II. The Plant.

Conditions for awakening life and growth in the seed. The organs of the plant (namely root, stem, leaf and flower) and the work of each. Seed distribution. Green plants, the food and fiber makers of the world.

III. Functions of Life Performed by the Single Cell.

The cell. Work of simplest forms of life. Asexual and sexual reproduction. Bacteria. Protozoa. Infection. Preserving goods—Balance of life.

IV. Man, Highest Type of Organism.

(a) The story of the digestion of food. Foods and intelligently selected diet.
(b) Blood, its work and circulation.
(c) Relation of breathing and respiration to the circulation of blood.
(d) Excretory organs (skin, lung, kidneys and large intestine) eliminating poisons from the body.
(e) Sensations, nervous system, reflex action, habit and mental hygiene.
(f) Alcohol and narcotics.

V. Improving the Conditions of Human Life and Growth.

The individual. The community.

General Science Classroom

A classroom for general science should supply a wide variety of demands such as a demonstration work, reference reading, class discussion, writing, and drawing, group and individual experiment work. Such a wide variety of student activities cannot be properly supervised without a convenient classroom. Most of the important features of the room should be installed while the building is being constructed. One room for all the work of a class is found to be best from the educational viewpoint, because it unifies the class discussion and laboratory work and

makes the course more flexible. Investigations seem to show that just as much can be accomplished by the teacher demonstration method of instruction as by individual laboratory work. This should dispel some of the discouragement arising from poorly equipped laboratories. While the teacher should try in every way to make her classroom attractive, convenient, and efficiently equipped, let us not become discouraged if we do not have the ideal situation with which to work. We all have at least the larger or general laboratory which is the out-of-doors environment, the home, the school, and the community. It encompasses the present life of the child. Every teacher has this most important laboratory.

Apparatus

Complete lists of apparatus for each of the sciences, together with suggestions as to laboratory equipment, will be found on pages 14-24 of the High School Manual. This publication has been supplied for the office of every high school principal.

Reference Books

Fabre, J. H. C.—*Story Book of Science* (Century).
Hessler, J. C.—*Junior Science, 2 vols.* (Sanborn).
Hodgdon—D. R.—*Elementary General Science* (Hinds).
Libby, Walter—*Introduction to History of Science* (Houghton).
Mills, E. A.—*Adventures of a Nature Guide* (Doubleday).
Trafton, C. H.—*Science of Home and Community* (Macmillan).
Verkes, R. M.—*New World Science* (Century).
Bolton—*Famous Men of Science* (Crowell).
Lewis, Mrs. L. E.—*Astronomy for Young People* (Duffield).
Lewis, Mrs. L. E.—*Splendors of the Sky* (Duffield).
Bowden—*General Science* (Blakiston, Philadelphia).
(This book was helpful in making course of study.)
Burns—*The Story of Great Inventions* (Harper).
Caldwell and Slossom—*Science Remaking the World* (Doubleday).
Fournier—*Wonder of Physical Science* (Macmillan).
Ingersoll—*Book of the Ocean* (Century).
Wonders of Science in Modern Life (Funk).
Comstock—*Handbook of Nature* (Comstock Pub. Co.).
Barrus—*John Burroughs—Boy and Man* (Doubleday).
Radot—*Life of Pasteur* (Doubleday).
Gilmore—*Boys' Book of Astronomy.*
Frank, J. O.—*How to Teach General Science.*
Downing, E. R.—*Teaching Science in the Schools* (Univ. of Chicago Press).
Eikenberry, W. L.—*Teaching of General Science* (Univ. of Chicago Press).
Pearson—*Bird Study.*
Rogers—*Trees Every Child Should Know* (Doubleday).
Lane—*Triumphs of Science.*
Bennett—*Making of Flower Garden.*
Green—*Principles of American Forestry* (Wiley).
Pocket Guide Book to Science—Popular Science Monthly.

Lescarboura—*Radio for Everybody* (Scientific American Pub. Co.).
Brooks—*Why the Weather* (Harcourt).
Washburne—*The Story of Earth* (Century).

Science Periodicals and Pamphlets

Scientific American and Supplement, New York City.
National Geographic Magazine, Washington, D. C.
Nature Magazine, Washington, D. C.
Popular Science Monthly, 250 Fourth Ave., New York.
The Science Class Room, *Popular Science Monthly.*
General Science Quarterly, Salem, Mass.
Garden Magazine, Garden City, N. Y.
Radio News.
Scientific Monthly.
Popular Mechanics.
Science and Invention.
Literary Digest.
Current Science, 40 S. Third Street, Columbus, Ohio.

BIOLOGY

Introduction

Perhaps none of the sciences appeals to the average boy and girl as do the biological sciences. This is not to be wondered at. It is but natural that every boy and girl should be interested in those courses that open up those marvelous and awe-inspiring phenomena of which he himself is a part. The biology teacher, therefore, carries a great responsibility. Great care should be exercised both in the laboratory and in the classroom in presenting the facts of nature so that the child will gain the proper conception of the great underlying laws of nature. The chief objectives that every biology teacher should strive to instill in the heart and mind of every boy and girl are briefly stated in the formal objectives *accompanying this report.*

None of the sciences requires so little permanent equipment as does biology. That trite but truthful adage "Let nature, not books, be your guide," is the rule to follow. Such materials as chemicals, reagents, charts, models, slides, and other materials listed in *the report* and which are a necessary part of any modern biology department must naturally be procured from standard and reliable supply houses, but the best source of fresh material is that of the immediate environment. In this connection the bringing in of material by individual students should be a part of the assignment just as mathematics problems and English or language sentences. This greatly increases the interest among the students. At the suggestion of the teacher a group of boys will delight in a trip to a nearby rocky branch or lake when crayfish, tadpoles, frogs and fish are needed. When large quantities of frogs are wanted it is better to send to a biological supply house. More satisfactory work on earthworms can be done with those especially prepared by supply houses.

There has been much discussion as to whether biology should be presented as one-half year of zoölogy and one-half year of botany or whether

the two kingdoms should be presented concurrently. A majority of the reports studied seem to follow the former method, some giving zoölogy in the fall semester and botany in the spring semester or *vice versa*. After all, this is a matter of minor importance. However, if the two are presented separately the teacher should make frequent references to the other kingdom in order that the central idea, that of the unity or similarity of all living things, shall not be missed. The sensible and logical procedure would be to arrange the topics so as to come at the time of year when fresh materials are most easily obtained. The fall of the year, however, seems to be the best time for insect study. It is the time of year when they are most abundant and nothing creates more interest at the beginning of the course than this very active group of animals. The study of fruits is doubtless best in the fall. This logically necessitates the study of the flower first. Fall flowers are usually abundant but they are of a more complex type than the early spring flowers and for this reason many teachers prefer to leave the study of flowers entirely to the spring. Certainly no teacher would go along without giving some attention to the study of flowers at that time of the year when all nature is teeming with their unfolding buds. Trees are doubtless best studied in the fall as the leaves have developed to their characteristic forms whereas in the schools which have only seven- and eight-month terms they are not perfectly formed by the time school is out.

The amount of emphasis placed upon any group of plants or animals should naturally depend largely upon the locality in the State. For instance, those schools located in the lower piedmont and coastal regions will have a more varied and abundant animal life to draw from, while the schools in the upper piedmont and mountain regions will have a greater abundance of plant life.

Aims in the Course in Biology

The generally recognized aims or objectives in the teaching of Biology are as follows:

1. To give to the pupil an intimate knowledge of important living plants and animals and their natural habitats.
2. To give the student an understanding of the interdependence of plant and animal life and the economic importance of various living forms.
3. To present only sufficient knowledge of plant and animal structures as will attain to the understanding of the fundamental functions common to the life of all organisms and thus to show the unity of all life.
4. To develop an understanding of the relation of biology to the other sciences, and to acquire some knowledge of the scientists who have made valuable contributions to biology, and especially to gain an appreciation of the importance of biological science to civilization.
5. To train the mind of the pupil, by developing his power of accurate observation, perception of the law of cause and effect, and ability to reason to logical conclusions from given data and experimental evidence.
6. To emphasize especially the essential conditions of individual and public health in city and State, and to establish in the individual pride in a healthy body.

7. To reveal the power of man to control the habits and relationships of plants and animals to serve his own ends.

8. To emphasize especially the power of man to control the formation of his own habits, and to establish a true conception of his responsibilities to society.

9. To enrich the life of the pupil through the esthetic appeal of plants and animals to the end that he may appreciate and enjoy nature.

These aims have been largely taken from New York State Regents Biology Syllabus.

Suggested Outline

Suggested topical outline dependent somewhat on the text used and on local conditions.

I. Discussion of some of the factors which enter into a knowledge of biological principles.

- a. The scope of biology.
- b. Review to bring out the pupil's knowledge of facts learned in previous science work.
  1. Life functions common to all living things.
  2. The idea of adaptations among all plants and animals, including man to carry out these life processes.
  3. Definitions of important biological terms such as environment, stimulus, adaptation, economic importance, etc. This part of the work should be continued throughout the course. Definitions are the tools by which the students make clear their knowledge of any subject. There are many devices by which this work can be made vitally interesting.
- c. Review of the composition of living and comparison with non-living things.
- d. In case the pupils are not familiar with the principles of oxidation and osmosis, these phenomena should be demonstrated as the student must be familiar with them in order to understand many of the processes in nature.

II. Insects.

- a. Study the grasshopper to determine the characteristics typical of all insects.
  1. Body regions.
  2. Head; number and kinds of eyes, antennae, mouth parts emphasizing adaptation of mandibles for the kind of food they eat.
  3. Thorax; number of regions, number and structure of appendages attached.
  4. Abdomen; number of segments in the abdomen, location and number of respiratory organs, location of ear and ovipositor.
  5. Regions of the hind leg.
  6. Life history.
  7. Economic importance.
  8. Drawings of lateral view of grasshopper, mouth parts, detail structure of compound eye and hind leg.

b. Characteristics of the orders common in your community.
   1. Drawings showing characteristics of orders.
   2. Write-ups recording briefly the characteristics, special adaptations, economic importance, and methods of control and extermination of harmful ones.

c. Topics for discussion.
   1. Communal life among insects.
   2. Parasitism and natural enemies among insects.
   3. Protective coloration among insects.
   4. Types of mosquitoes found in the United States, their relation to malaria and yellow fever and methods of extermination.
   5. The relation of the house fly to disease and sanitation.
   6. What the National and State governments are doing in controlling and exterminating insect pests and individual responsibility in aiding them.

III. Crustaceans.

a. Study the living crayfish to determine its external features, noting especially its method of locomotion, food taking, respiration, body regions, number of appendages, body protection.

b. Optimal demonstrations of internal anatomy of this group (emphasizing digestive, circulatory, nervous and excretory systems).

c. Economic importance of crayfish, shrimp, lobsters and crabs—
   1. As food.
   2. As scavengers.

IV. Class discussion of other arthropods, myriapods and arachnida.

V. Protozoa.

a. Characteristics and classification of this group.

b. Observation of living specimens of the different groups to determine—
   1. Their methods of locomotion, food-getting, digestion, respiration, excretion and reproduction.
   2. To determine their response to stimuli.

      Typical forms for this study are the amoeba, paramecium, euglena, plasmodium vivax. The latter should be studied in connection with the malaria-carrying mosquito.

      Vorticella forms an interesting form for additional study. This introduces the use of the compound microscope and opens up a new and interesting world to the students.

c. In this study emphasis should be placed upon the cell as the unit of both structure and function of all living things, inheritance, life cycles, the relation of organisms to their environment and above all the single cell as it embodies all the life functions common to all living things.

VI. Optional volvox.

a. Its structure and reproduction.

b. As a transitional form between the protozoan and metazoan organisms.

c. As it marks the beginning of "division of labor."

   If this form is not studied these points should be discussed in connection with the earthworm.

VII. Worms.
- a. Classification and characteristics of this group. (Necessary for economic study.)
- b. Study the living earthworm to determine its external anatomy, response to stimuli, and
- c. Dissection of the earthworm, emphasizing
  1. Circulation.
  2. Digestion.
  3. Nervous system.
- d. Economic importance of the earthworm.
- e. Class discussion of the other worm groups as they are related to personal and public health.

VIII. Fish.
- a. Study of a living fish to determine its external anatomy, method of locomotion, food-taking, respiration and body regions.
- b. Drawing of lateral view to show position of fins, eye, operculum, lateral line, and position of jaw.
- c. Optional internal anatomy emphasizing digestive, circulatory, excretory, reproductive, nervous and respiratory systems; and pointing out increasing division of labor.
- d. Drawing of internal anatomy, in case dissection is done.
- e. Drawing of a gill showing gill arch, filaments and gill rakers. In this study adaptations for the function of these parts should be stressed.
- f. Make use of magazine articles and special reports for discussion of the economic value of this group, fish hatcheries, national and State aid in protecting fish during the spawning season. These articles may form the basis of special reports by the students.
- g. If there is an aquarium, fish hatchery or any kind of fish industry in the community an excursion to all or any of them adds interest to this work.

IX. In introducing the vertebrates their distinguishing characteristics should be pointed out and compared with the invertebrates.

X. Frog.
- a. Study the living frog to determine body regions, external organs, methods of food-getting, respiration, adaptations for methods of locomotion, and protective coloration.
- b. Drawing to show the external features of the frog.
- c. Optional drawing of the mouth cavity to show position of tongue, internal nares, vomers, eustachian tubes, glottis, opening to the œsophagus, and sound pits in case of male.
- d. Demonstration to show the path of the air to the lungs.
- e. Dissection to show the location and parts of the alimentary canal and digestive glands, the respiratory organs, the heart and main veins and arteries, the urinogenital system of both male and female, and the nervous system. Drawings should be made of all these systems.

  The frog is the classic animal by which the student obtains his first-hand knowledge of the functions of the various systems

as they operate in his own body and should be studied from this point of view.

f. Frog eggs and tadpoles should be brought to the laboratory where the students may observe from day to day the metamorphic process.

XI. Man.

a. Body region and the organs contained in each region.

b. Laboratory experiments to prove the digestive process in man should be carefully and thoroughly worked out, and how the digested food is absorbed, circulated and assimilated by the body and how the waste products of metabolism are eliminated from the body should be thoroughly treated.

c. Laboratory experiments in heredity which bring out the law of the Mendelian ratio upon which our modern methods of improving plant and animal strains is based. Reports by the students on the life and work of Gregory Mendel and that of Luther Burbank in plant breeding forms good supplementary material. This laboratory study also forms the basis for an understanding of inheritance among human families. Records of famous families may be referred to and the importance of careful selection of one's friends and finally an intelligent choice in marriage should be made clear to all students.

d. Our knowledge of the nervous system of the frog should form an excellent basis upon which to enlarge our conception of a typical nerve cell and the way in which stimuli are received into and directed over the body. Above all the conception that man himself is the power that controls, for good or for bad, those millions of impulses that come surging into his body, in the development of his character from a personal standpoint as well as that of society, should be strongly emphasized.

The nervous system as it is related to the life functions of every individual and the effects of alcohol and narcotics on its normal functioning, should be the knowledge of every individual.

If the structure and care of the ear and eye have not been studied in general science some attention should be given to them here.

e. Circulation and assimilation.

1. The composition, function and circulation of the blood.
2. Origin and function of the red and white corpuscles.
3. Structure and function of veins, and arteries, and capillaries.
4. The lymphatic circulation.
5. Position, structure, and function of the heart.
6. Treatment of cuts and bruises and the clotting of blood.
7. Effect of stimulants upon the organs of circulation.

f. The organs of excretion, emphasizing the care of the skin.

g. The organs of respiration and the necessity of hygienic habits of breathing.

h. Demonstration of capillary circulation in the web of the foot of the frog or tail of a tadpole.

XII. Ductless glands and hormones.

XIII. Birds.

a. Gross anatomy for practical purposes in identification.
b. Classification of birds according to structure.
c. Identification of fifty of our common birds.
d. What the national and State governments have done to protect birds by the establishment of game laws, conservation, and reservations, and what we as individuals can do in aiding these governments.
e. Work of bird societies such as the American Ornithologist Union and Audubon Society. (The amount of work done on this group will be largely dependent on the amount of time at the teacher's disposal. Much can be accomplished by individual home work and in coöperation with the Boy Scout movement.)

XIV. Plants.

a. Classification of the plant kingdom making clear the idea and value of the terms of our binomial nomenclature. Only the main divisions, including the two subdivisions of the Angiosperms need be considered.
b. Study of the plant cell using the thin tissues between onion scales. Elodea may also be studied in this connection in order to acquaint the student with protoplasmic activity. Cells from the interior of the mouth serve to correlate the two kingdoms. Review the facts learned about animal cells; compare the plant cell with animal cell by pointing out that the cells of green plants are the only ones that can manufacture food.

XV. The Algae.

a. Classification according to color.
b. Pleurococcus as an example of the simplest type, emphasizing habitat, color and method of reproduction.
c. Spirogyra as a more complex type emphasizing habitat, color, arrangement of cells in the form of a filament, specialization and content, the cell and reproduction.
d. Vaucheria emphasizing color, habitat, cell structure, methods and special organs of reproduction.
e. Oscillatoria emphasizing color and habitat and oscillatory movement only.

The last two forms are found so commonly in greenhouses that they should be included in every study of this algae group.

f. Diatoms: Optional.
g. Specimens of red and brown forms should be in every laboratory for illustrative material. These need not be studied in the laboratory but should be included in the discussion of algae.

XVI. The Fungi.

a. The yeast, emphasizing structure and content of the cell, reproduction, and making clear how the life processes common to all living organisms are carried on. Emphasize also the relation of the yeast plant to fermentation and bread-making.

b. Bread mould grown by students.

Emphasize the structure of the tangled mass (mycelium), the specialized hyphea, asexual and sexual reproduction, digestion and absorption of food and economic importance.

c. Other economic fungus plants such as poisonous and nonpoisonous mushrooms, chestnut blight, plum rot, cabbage yellow, potato blight, may form a part of the class discussion.

d. Bacteria.

1. Preparation of culture media for growth of bacteria.
2. Exposing sterile petri dishes in various places about the school and (optional), in various business places about the city. The latter proves to be very interesting.
3. Brief microscopic study of the forms of bacteria.
4. Conditions necessary for growth and the rapidity of multiplication.
5. Relation of bacteria to disease. This introduces such terms as vaccination, serum treatment, toxins and antitoxins, disinfectants, and antiseptics.
6. Bacteria in relation to soil formation.
7. Bacteria in relation to decay.
8. Bacteria in relation to the home.

Studies 1, 2, and 4 should be correlated with home economics. Life and works of Pasteur, Robert Koch and Edward Jenner should be discussed.

e. Optional: Life cycle of wheat rust.

XVII. The Moss.

Complete life cycle to show both sexual and asexual methods of reproduction.

XVIII. The Fern.

Complete life cycle to show both sexual and asexual methods of reproduction. Drawings should be made carefully labeled of all parts of both generations. If the time is limited a choice between the moss and the fern may be made, but there are ineresting comparative studies to be made between the two, and their similarity gives students a better understanding of the idea of alternation of generation.

XIX. The Flower.

a. Determine the structure and function of the parts of a simple type of flower. If this has been done in a previous science this will only need to be reviewed.

b. Make a comparative study of several types of flowers, pointing out homologies and special adaptations for the different types of pollination. Correlate this study with what has been learned in connection with insects.

c. Types of infloresence should be observed. The amount of time given to this study should be dependent upon the time available.

XX. Fruits.

a. In their relation to the plant.

b. In their relation to developing seeds.

c. Comparative study of adaptations of fruits for seed dispersal.
d. Fruits as food for man.

XXI. The Seed and Germination.

a. Study the lima castor bean for external features and embryos.
b. Compare with a similar study of the fruit of the corn.
c. Experiments to study the conditions necessary for growth such as soil, moisture, temperature, air, light and food.
d. Test various seeds for the nature of their food content and determine how this food is converted into a usable form by the plant.
e. Seeds as food for man.
f. Plant propagation and plant breeding discussed in c of XI may be reviewed here.

XXII. The Root.

a. To determine the gross structure carefully remove a young bean or corn seedling and determine the primary and secondary roots, the root hairs, root cap and region of growth.
b. Optional: Microscopic demonstration of root to show cell structure of root and root cap. (Tradescantia is good for this study.)
c. Function of roots.
d. Application of the phenomenon of osmosis to absorption.
e. Types of roots.
f. Their uses to man.
g. Demonstration to show the region through which liquids rise.
h. Demonstration to show the response of roots to gravity.

XXIII. The Stem.

a. Microscopic study of the cross sections of a monocotyledonous and dicotyledonous stem.
b. Comparative study of monocotyledonous and dicotyledonous plants.
c. Detailed study of the structure and function of the fibrovascular bundle.
d. Demonstration to show the region through which liquids rise.
e. Kinds of stems.
f. Function of stems.
g. Uses of stems to man.
h. Adaptations of stems.
i. Propagation of stems.

XXIV. The Leaf.

a. External structure of the leaf.
b. Microscopic study emphasizing the stomata on the lower epidermis.
c. Detailed study of the food-making process, digestion, assimilation, respiration and transpiration as carried on in the leaf.
d. Photosynthesis.
   1. Carbon dioxide and water as raw products.
   2. Source of these and how they enter the plant.
   3. Demonstrate the necessity of light for this process.
   4. Why place the plant in a dark room?
   5. Demonstration to show the necessity of chlorophyll.

6. Demonstrate to show the liberation of oxygen. (Use elodea on an alga.)

e. Demonstration of transpiration by leaves.
f. Discussion of respiration, and compare with photosynthesis.
g. Adaptation of leaves.
h. Leaves as a source of food, medicine, shelter and clothing.

XXV. Forests.

a. Economic value of forests.
b. The value of forests in drainage.
c. The value of forests in soil formation.
d. Our natural reserves and why they should be extended.
e. Protection of our native trees and observance of arbor day.
f. Destruction of forests.
   1. By fire.
   2. By improper lumbering.
   3. By insects and fungus diseases.
g. Forest protection.
   1. By reforesting.
   2. By establishing national and state parks.
   3. By protecting trees from injury.
h. Forest products.
i. Identification of our common forest trees.
j. Forestry as a vocation.

Names in Biology with Which Every Student Should be Familiar

William Harvey, Leeuwenhoek, Edward Jenner, George Cuvier, Jean Lamarck, Schwann, Schlerden, Max Schultze, Charles Darwin, Thomas Huxley, Louis Pasteur, Robert Koch, Sir Joseph Lister, Elias Metchinkoff, John Muir, Gregor Mendel, Hugo de Vries, John Burroughs.

Reference Books

Sternberg, George M.—*Inflection and Immunity* (G. P. Putnams).
Thompson, J. Arthur—*The Outline of Science* (G. P. Putnams).
Science Old and New.
Transeau—*Science of Plant Life.*
Dorsey—*Why We Behave Like Human Beings.*
Reed—*Flower Guide* (Doubleday-Page Co., Harpers).
Reed—*Bird Guide* (Doubleday-Page Co.).
Natural Guide to the Americas (The Williams and Wilkins Co.).
Wheeler—*Ants* (Columbia University Press).
Hodge—*Nature Study and Life.*
Britton—*North American Trees* (Ginn and Co.).
Judd—*Psychology of High School Subjects* (Ginn and Co.).
Flora of N. E. U. S. (Britton and Brinn, 3 vols.).
Ganong—*Teaching Botanist* (Macmillan).
Reorganization of Science in Secondary Schools (U. S. Bureau of Education, Washington, D. C., Bulletin No. 26, 1920).
Lloyd and Bigelow—*Teaching of Biology in Secondary Schools* (Longmans).
Woodruff—*Biology* (Macmillan).

Conn—*Bacteria, Yeast and Mold* (Linn and Co.).
Ganong—*College Botany* (Macmillan).
Hegener—*College Zoölogy.*
Pacher Haswell—*Text Book in Zoölogy* (Macmillan).
Dugger—*Plant Physiology.*
Greenberg—*Biology* (Ginn and Co.).
Fernald—*Economic Insects.*
Fabre—*Insect Behavior, 14 vols.* (Dodd, Mead & Co.).
Comstock—*Handbook of Nature Study* (Comstock Publishing Company, Ithaca, New York).
Chapman—*Handbook of Birds of Eastern North America* (D. Appleton & Co.).
Pearson, Brimley and Brimley—*Birds of North Carolina* (The Audubon Society of North Carolina).
Smith—*Fishes of North Carolina* (Geological Survey).
Comstock—*Introduction to Entomology* (Comstock Publishing Company, Ithaca, New York).
Stokes—*Aquatic Microscopy for Beginners* (John Wiley & Sons).
Reece—*Economic Zoölogy* (Blakeston).
Locy—*Biology and Its Makers* (Henry Holt & Co., New York, N. Y.).
Lutz—*Field Book of Insects* (Putnams Sons).
Coker—*Trees of North Carolina* (Published by Author).
Commonest Trees of North Carolina (N. C. Geologic Survey).
Blanchan—*Bird Neighbors.*
Nature's Garden—*Blanchan* (Doubleday-Page Co.).
Blanchan—*Nature's Garden* (Doubleday-Page Co.).
Manual of Botany of Northern United States.
Gray's Handbook of Botany (American Book Co.).
Twiss—*Science Teaching* (Macmillan).
Bergen and Caldwell—*Introduction to Botany* (Ginn and Co.).
Nature Library—*The Frog Book, The Moth Book, The Butterfly Book, The Insect Book.*
Library Books on Science (Bulletin, University of Michigan).
Webb, Hanor A.—*The High School Science Library* (George Peabody College for Teachers).

Magazines

Current Science (40 South Third Street, Columbus, Ohio).
Nature Study.
National Geographic.
The Science Classroom.
Farmer's Bulletins (U. S. Department of Agriculture. Write department for list of titles).
Scientific American.
Science Service Bulletins (National Research Council Bldg., Washington, D. C.).

GEOGRAPHY

Introduction

In the curricula of the reorganized high school, provision is made for the teaching of Geography. The plan contemplates that the subject will be taught in the third year, Physical Geography in the first semester, and Commercial and Industrial Geography in the second semester, or a combination of the two throughout the year.

This subject is frequently classified with the social sciences, particularly in early high school, and sometimes with the pure sciences. There is very little doubt about the worth-whileness of the subject, and its appropriateness as a subject to be pursued in the high school. When taken along with General Science, Biology, Physics and Chemistry, Geography tends to round out the science course in a very satisfactory manner.

High School Geography has been humanized to a great extent within the past few years. In the teaching of the subject it is now generally recognized that emphasis should be placed upon the "influence of geographical environment upon man's mode of life, and upon his principal activities."

In providing for the teaching of Physical Geography in the first semester of the third year, it is not meant to suggest that this phase of geography should be completely divorced from Commercial and Industrial Geography. Many good teachers of geography agree with R. H. Whitbeck in his statement: "Until a few years ago the geography of the secondary school was either physical geography or commercial geography; but thus to separate the two is to rob each of its complement. If the large facts of economic geography are not traced back to the physical *causes* upon which, in a degree at least, they rest, and if the facts of physical geography are not carried forward to some of the great human consequences which arise from them, then each falls short of its possibilities. Geography is not simply a study of the physical environment of man, nor is it simply a study of selected human activities; rather it is a study of both *plus* their interrelation."

Subject Matter or Content

The content or subject matter of the course in geography is indicated in the books adopted for use in the high school. It will be found that the discussion includes such topics as the following: The earth as a planet; general features of the earth, changes in the earth's crust; rivers and river valleys, plains, plateaus, and deserts; mountains; volcanoes, earthquakes and geysers; glaciers and the glacial periods; lakes and swamps; the ocean; shore lines; the atmosphere; winds and storms; weather and climate; distribution of plants and animals; rivers of the United States; physiography, particularly of the United States.

In teaching the topics suggested in physical geography it is expected that due regard will be had for relative values, and that, therefore, more emphasis will be placed upon some topics than others. For example, less emphasis (and therefore less time) will be placed upon *Glaciers* than upon *Weather* and *Climate*. Or, again, icebergs are not particularly important, even though a collision with one caused the sinking of the *Titanic*.

Methods of Teaching

In handling the subject matter in geography the same degree of teaching skill should be used as that which characterizes good teaching in other subjects. The problem or project method may be used to considerable extent. Much use should be made of directed study. In this subject of geography skillful use should be made of the question and answer method, the discussion method.

The adopted textbooks have provided problems, exercises, and questions which call for comparison, observation, reasoning, judging and generalizing.

The teacher will find various exercises which will afford an opportunity to give the pupils experience in topical recitations, in the use of reference books and in making excerpts, abstracts and summaries of portions of the text.

Laboratory

A geography laboratory can be equipped at small expense. If a separate room is not available, fit up one regular recitation room as a *Geography Classroom.*

The exercises in the adopted textbooks will suggest abundant laboratory exercises. Many of the topics are adaptable to laboratory treatment.

The pupil *must have* a manual or a good permanent notebook.

The work *must be* on a double period basis, that is, three recitation periods, and two double periods for laboratory work, making a total of seven periods per week with five credits, or one unit for the year's work.

Field work is one form of laboratory work. To make field trips contribute to the pupil's training and knowledge; it will be necessary for the teacher to plan such trips with the greatest care and definiteness. In almost every instance, the teacher should have covered the ground before taking a trip with the students. Such procedure will save time and conduce to more effective effort on the part of students. The teacher must not rely on general knowledge and inspiration. He must know what he will find in any given locality.

Illustrative Material

A museum can be built up at a moderate cost. The collections made should include (a) photographs, half-tones, and any attractive pictures; (b) collections of illustrated pamphlets, magazines and newspapers, such as those issued by the Bureau of the Federal Government, Washington, D. C. Publications of the U. S. Geological Survey, the Department of Agriculture, and the Biological Survey. Weather Bureau reports are sent out by the Department of Agriculture, Washington, D. C. (c) Collections of mineral resources—North Carolina has a great variety of minerals, and a good supply can be collected at slight expense. (d) Advertising materials of all kinds. Materials such as folders, guides, and posters may be secured from the various railway systems of the country. Those railroads operating in North Carolina—Southern, Seaboard Air Line, Atlantic Coast Line, and Norfolk & Southern and others should be asked to furnish all available materials. Write to the following State Departments, Raleigh, N. C., for the materials suggested:

State Highway Commission for large wall map of the highway system, and also for small size maps.

Corporation Commission for map of North Carolina.

Agriculture Department for various publications of the department.

Topographical maps should be ordered from the United States Geological Survey, Washington, D. C. Prices for these maps are: 100 maps or more, 6 cents each; less than 100, 10 cents each.

These topographic maps illustrate youthful drainage, old age drainage, mature drainage, rejuvenated regions, river terraces, braided channels, natural levees, flood plains, distributaries, deltas, alluvial plains, gorges, meanders, oxbow lakes, drowned valleys, active glaciers.

The following topographic maps showing the effects of continental ice sheets may be secured also:

Terminal moraine, ground moraine, changes in drainage systems, glacial lakes and kettle holes, volcanoes, mountains, plateaus and mesas, dissected plateaus, coast lines.

Order from U. S. Geological Survey, Washington, D. C., the following:

(a) A two-sheet wall map of the United States with or without contours; (b) Base maps of the United States, 18x28 inches, 11x16 inches, or 8½x12 inches.

Also ask for portfolio of National Parks.

The U. S. Weather Bureau, Washington, D. C., will furnish blank weather maps. The map of the United States, issued by the General Land Office, Department of the Interior, Washington, D. C., should by all means be secured.

Every geography classroom or laboratory should have physical maps.

See page 13, High School Manual.

North Carolina Geography

The Geography of North Carolina, giving essential facts about the agricultural, industrial and economic development of the State can be provided in the eighth grade as a part of the course in Science I, General Science, and especially in the tenth grade in Science III, Geography.

A textbook must be prepared, particularly for the tenth grade. There are numerous bulletins and publications which give facts about North Carolina and which would serve admirably as supplementary material to a good textbook.

The State Department of Conservation and Development publishes a bi-weekly bulletin—Conservation and Industry, and has available such bulletins as The Story of the Geologic Making of North Carolina, Hunting and Fishing in North Carolina, Common Forest Trees, and North Carolina, Economic and Industrial, and North Carolina, A Good Place to Live. The State Department of Agriculture has published in the June, 1926, issue of the Bulletin, *Agricultural North Carolina*. This issue will be sent in quantities to teachers on application.

In order to provide for this course in Geography in 1930-'31, Science III, Geography—Physical, Commercial and Industrial can be given in the first semester, and North Carolina Geography in the second semester of the third year.

PHYSICS

Introductory Statement

The fact that the physical sciences of the past twenty years have made so little appeal to the average high school student is indicative of a necessity for the reorganization of these courses. Certainly with the almost phenomenal advance of this science with the discovery of the electron, the advance of the theory of relativity, the recognition of radioactivity, the mastery of rapid and long distance telephone and telegraph transmission, physics should stimulate and retain the interest of every normal boy and girl. And so it seems today that if the physical sciences are to arouse and maintain the interests of our boys and girls they must break with past methods of presentation and develop courses along new lines. Surveys have been made and much time spent in an attempt to discover the basic reason for this lack of interest. The consensus of opinion is outlined in Bulletin No. 26, 1920, on Reorganization of Science in Secondary Schools and briefly is as follows: (1) The content has been too largely that handed down by tradition through textbooks, which were largely based on the logical organization of subject matter, neglecting the interests of pupils and laws of learning. (2) The teaching of the past has too frequently assumed that a principle may be readily grasped if only it be once stated in clear language and illustrated by a few examples, and that it may then be generally applied with comprehension and completeness. It is now recognized that principles may be best arrived at and comprehended through solving problems. Through the guidance of the teacher, students should be made to realize that the generalizations with regard to physical phenomena should be arrived at and comprehended by their own mental processes. In order that these generalizations may become a part of the individual, to be used at a moment's command, the student must repeatedly witness the operation of them until the principle can be transferred to any place where it may be applied. Too often the classroom work and the laboratory have not been closely related, thus prohibiting the student from obtaining this practical experience.

It is not the purpose of this report to formulate a course of study which should be strictly adhered to. In this, as in all other courses of study, individual freedom on the part of the teacher should be enjoyed. As suggested in the national report, the teacher should make an accurate survey of the physical facts and phenomena of his particular locality as they are exemplified through industry and occupation. "These facts and phenomena should then be analyzed and classified with reference to the principles of physics that underly them, with reference to the wideness and frequency of their uses and with reference to the interest and teaching utility of the projects arising from them." In all cases they should be chosen so as to embrace as wide a range of physical phenomena as possible. Once organized the study of these phenomena should be approached from the standpoint of unit instruction as either individual or class projects. This method "instead of consisting of certain sections or pages from the textbook, or of a formal laboratory exercise should consist of a definite question, proposition, problem or project, set up by the class or teacher."

The laboratory work, class conference, notebooks, demonstrations, excursions, reports, clubs, etc., follow the suggestions offered in the general introductory outline. For a more detailed account of the reorganization of physics in the high school consult Bulletin No. 26, 1920, Reorganization of Science in Secondary Schools.

Aims in Physics

1. To fit the subject to the pupils rather than to fit the pupils into the difficult presentation of the theoretical and mathematical phases of Physics.
2. To enable the pupil to seek knowledge which is valuable in life situations, rather than mere information soon forgotten.
3. To teach a scientific explanation of the phenomena that occur in the physical world.
4. To stimulate the pupil to do some thinking on his own account about the "hows" and "whys" of the physical world in which he lives.
5. To develop the powers of scientific observation, scientific investigation, and scientific imagination.
6. To develop a more adequate conception of truth and a confidence in laws of cause and effect.
7. To develop those scientific ideals that help to motivate the great discoveries and achievements in physics by teaching biographies of men who made sacrifices to establish scientific truths.
8. To develop tastes and appreciation for scientific pursuits either vocations or avocations by showing the importance of physics in modern industry.
9. To train pupils in making correct measurements and drawing proper conclusions.
10. To discover if a pupil has an aptitude for the study of Physics and if so to encourage him to go further in the subject.

This statement of aims was taken largely from Bulletin No. 26, U. S. Bureau of Education.

Suggested Unit Topics for Physics

Measurement, Density, Solids, Liquids, Gases, Force and Motion, Work and Heat, Energy, Magnetism, Electricity, Dynamos, Motors, Electrolysis, Batteries, Sound, Light, Color, Radioactivity.

What the Student Should be Able to Define, State, Explain, Illustrate or Give Formula for at the End of the Year

1. All tables of the metric system and give English equivalents of fundamental units.
2. Paschal's and Archimedes's Principles with applications.
3. Density and specific gravity with applications.
4. Kinetic molecular theory of matter with proofs.
5. Laws of falling bodies and of the pendulum.
6. Newton's laws of motion.
7. Force, work, power, energy, momentum, parallelogram of force, speed, acceleration, friction, types and laws of machines.
8. Fahrenheit, centigrade and absolute temperatures.
9. Calorie, B. t. u., specific heat, latent heat of fusion and evaporation, coefficient of expansion, transfer of heat by all methods, ventilation,

equivalence of heat and work, the steam engine, the gas engine, boilers, heating systems.

10. Theory of magnetism, lines of force, field of force, poles, induced magnetism, permeability, declination, inclination, agonic line, isogonic lines.

11. Theory of electricity, methods of producing electricity (static and current). Voltaic and storage cells, parallel and series connections of cells and conductors, laws of conduction.

12. Oersted's and Henry's discoveries, Ohm's law.

13. Couloumb, volt, ampere, ohm, watt, etc.

14. Voltmeter, ammeter, Wheatstone's bridge, wattmeter.

15. Induction coil, transformer, rheostat, electromagnet, telephone, telegraph, condenser, bell.

16. Principle of dynamo and motor with ability to trace currents and connections, commutator, armature and field windings.

17. Back E. M. F., eddy currents, insulation.

18. Alternating currents, cycle, phase, power transmission, induction motor.

19. Electric heat formula, electrolysis, radio phone and telegraph, electric lighting.

20. Sound, production, speed, length and frequency laws, amplitude, pitch, overtones, reflection, intensity, resonance, echoes, beats, sympathetic vibrations, laws of strings and resonance tubes, musical scales and musical instruments.

21. Light, theory, speed, illumination, efficiency of lamps and illumination, photometer law, mirror and lens formula, construction of telescope, microscopes, cameras, projection lanterns, spectroscope.

Fifty to sixty experiments illustrating the laws and applications of physics should be performed.

But few teachers in nine and ten months schools will be able to accomplish the work suggested above in a thorough manner. Shorter term schools will seldom be able to cover it all with satisfactory results. If students have a thorough and permanent grasp on seventy-five per cent of the suggested work with some idea of the remainder, the work may be considered as satisfactorily done.

The teacher will have to use his own judgment, the desires of the students, the equipment on hand, and local conditions in determining what shall be touched lightly or omitted.

In general, sound, mirrors and lenses, heat experiments, and static electricity will be found least practical if not least interesting and thought provoking. These should be touched upon lightly at least.

Outline of Work by Weeks

The teacher who does not care to follow this exact outline should prepare an outline at the beginning of the year and adhere to it with but little deviation. The following outline will allow for enough variation to meet all conditions.

First Semester—(1 to 2 weeks).

Measurements. Teach metric system perfectly in all of its details. This will avoid a great deal of misunderstanding and loss of interest later in the year and make the work much easier for all concerned.

First Semester—(3-4-5).

Archimedes's and Pascal's principles with applications. Density, specific gravity, gas laws, barometry, pumps. Molecular and kinetic theory of gases.

First Semester—(6-7-8-9-10).

Force and motion, machines, work, power, energy, momentum, the pendulum, falling bodies, parallelogram of force.

First Semester—(11-12-13-14-15).

Heat, thermometry, specific heat, transmission of heat, heating and ventilation, heat engines, heat and work.

First Semester—(16).

Review and tests. Complete to magnetism if possible.

Second Semester—(1-2).

Magnetism and static electricity.

Second Semester—(2-3).

Battery currents and magnetic effects of currents.

Oersted's and Henry's discoveries, Ohm's law, conductors and laws of conduction, battery formulas.

Second Semester—(4-5).

Electric units of measurement and measuring instruments. (The student should be familiar with the structure and principle of every instrument used.) Induction coil, induction.

Second Semester—(6-7).

Generators and motors, armature and field windings, commutator.

Second Semester—(8-9).

Alternating currents, transformers, power transmission, wiring for lights and power. Electric heating, electrolysis, and the storage battery.

Second Semester—(10-11).

Sound, musical scales, musical instruments, laws of vibrating strings and air columns, acoustics.

Second Semester—(12-13-14).

Light, theory, illumination, methods of lighting, mirrors and reflectors, lenses, light instruments as the telescope, microscope, camera, spectroscope.

Second Semester—(15).

Radio.

Second Semester—(16).

Review and tests.

NOTE: Indiana High School Manual, pp. 170-171.

References for Teachers

Reorganization of Science (U. S. Bureau of Education, Washington, D. C.).

Mann—*The Teaching of Physics* (Macmillan).

Twiss—*Science Teaching* (Macmillan).

Woodhull—*Teaching of Science* (Macmillan).

Judd—*Psychology of High School Subjects* (Ginn and Co.).

Rusk, A. D.—*How to Teach Physics.*

Reference and Library Books

McCabe, Joseph—*The Marvels of Modern Physics* (G. P. Putnam).
Papin—*From Immigrant to Inventor* (Scribners).
Collins—*Popular Science Library Volumes.*
Lectures on Ten British Physicists (J. Wiley & Sons).
Hodge—*Pioneers of Science.*
Burns—*Stories of Great Inventions.*
Holland—*Historic Inventions.*
Johnson—*Modern Inventions.*
Butler—*Household Physics.*
Williams—*How It Works.*
Williams—*How It Is Done.*
Williams—*The Wonders of Science in Modern Life.*
Kennelly, Moffatt—*Wireless Telegraphy and Telephony* (Yard & Co.).
Collins—*Popular Science Library* (18 volumes).
Millikin—*The Election.*

Magazines

Current Science (40 South Third Street, Columbus, Ohio).
Popular Science Monthly (Modern Publishing Corporation, 225 West 39th Street, New York).
Scientific American and Scientific American Supplement (Munn and Co., New York).
Science and Invention (233 Fulton Street, New York).
Wireless Age (42 Broad Street, New York).
Literary Digest (Funk and Wagnalls).
The Science Classroom (Popular Science Publishing Co.).

CHEMISTRY

Introduction

Chemistry is by its very nature an experimental science and while the exact method of presentation pursued will depend largely upon the individual teacher, indications are that the most successful results are obtained through the project method based upon the fundamental units underlying the general principles of the course. Chemistry, like physics, has not appealed to the average student as the inherent nature of the course justifies. As pointed out in Bulletin No. 26, 1920, on Reorganization of Science in Secondary Schools in general the courses have adhered too closely to the traditional outline of some chosen text. Chemical theories and generalizations have usually been taught as such and their applications in industry and daily life have been presented largely as illustrative material whereas this order should be reversed. Laws and theories should be approached through experimental data obtained in the laboratory and through applications with which the pupil is already familiar and in which he has some real interest. Pupils like to make things; they like to see changes take place before their very eye rather than read about them. A pop, a sizzle, a bursting into flame grips the interest of every boy, at least.

The organization of the chemistry courses should command the most careful and thoughtful attention of the teacher. The subject marks a definite departure from all previous fields of learning. The student enters a new and unexplored land. One of the first things that the student of chemistry must do is to learn the language of this foreign land because it is by means of this language that the results of his experiments are to be recorded and apprehended. Surrounded by this mass of strange ideas and terms there is grave danger of the student becoming bewildered and finally discouraged, therefore the successful teacher of chemistry will see to it that new ideas are not presented too rapidly. A slow beginning will pave the way for a more rapid and comprehensive ending. Briefly stated "the first semester's work should be, in a measure, a course in chemical interpretation: it should ground the pupil in the main processes and operations of the course; it should equip him with a workable knowledge of the subject; it should drill him in the manner of expressing results in this language; and it should prepare him for a clear understanding of the practical phases of the subject expressed in technical terms." Thus equipped the student is able to approach in a real scientific way a study of the practical applications of the course as found in the home, in industry, and on the farm.

The National Bulletin on The Reorganization of Science in Secondary Schools points out that, "in organizing science on a unit basis the larger units should be employed because they show broad relations and secure the right sort of organization in the mind of the pupil." For an illustration of this principle consult the above named bulletin, pages 42 and 43.

The report makes no attempt to outline a definite set of units but a few suggested topics might prove helpful.

Aims in Chemistry

1. To develop powers of observation and teach methods of scientific investigation and scientific imagination.
2. To give information of a definite value that the pupil can apply to his own experience.
3. To enable pupils to realize the importance of chemistry in modern life and the industries.
4. To help the pupils find themselves, that is to discover whether they have an aptitude for further study in chemistry and if so to encourage each student to continue their study of science in college.
5. To emphasize the lives and works of those persons who have been leaders in scientific endeavor and especially those who have made great sacrifice to establish scientific truths.

Vitalizing the Study of Chemistry

For a beginner in Chemistry it is more essential to emphasize the fundamental nature of chemistry than that an effort be made to comprehend all the details of the science. Certain definite information is necessary because it is an exact science, but the more puzzling theories, the less important compounds, and all but the simplest problems can well be postponed for those who expect to enter into some phase of chemistry or chemical engineering as a profession and omitted for others.

The method pursued in most of the textbooks is somewhat stereotyped. The usual method of presenting the elements is to give some paragraphs on the history, occurrence, preparation, physical and chemical properties, various compounds, and uses. To be sure this is a systematic method, but it hardly arouses curiosity or promotes a vital interest in the subject. If the subjects can be made to touch life at more points, so that the pupil can appreciate its relation to most of the affairs of life, they will appeal to his investigative mind and not be a dry catalogue of scientific facts and formulas.

Too many of the first texts attempt to cover the whole field of chemistry, even to the deeper theories of physical chemistry. Such a book does not appeal to the pupil, because his experience is not yet broad enough to grasp the value of such subjects as equilibrium, mass action, the phase rule, thermo-dynamics, and free energy.

To vitalize the subject the class work should be freely illustrated with instructive experiments. If a few bottles of oxygen should be prepared and its properties illustrated with the assignment on this subject, the pupil will have an eagerness to read all the book says about oxygen because oxygen is real in his mind and not an imagination. Then on the following class period the mind of the pupil can easily be led on into some of the less obvious nature of oxygen, as for example combining weight, molecular nature, and the practical usefulness of the element.

Throughout the course certain central themes will constantly be developing and recurring. Such themes are called unit topics. These are the important ideas of the science. The isolated element or compound method of study suggests a catalogue. In an orchestra each instrument does its work as an individual, but with all working together certain themes and harmonies become apparent which make the great symphony. Among the important unit topics which weave themselves throughout the science are about a dozen laws, theories, and hypotheses. Some of the more important of these are the laws of the conservation of matter and energy, of definite and multiple proportion, the atomic, molecular, and ionic theories, and Avogadro's hypothesis. The idea of atomic weights and the periodic arrangement of the elements in the table should be introduced early and the chart should be on the wall for daily reference. No achievement in chemistry equals the value of the periodic table for a comprehensive grasp of the whole science, therefore acquaintance with it should be early and constant.

The idea of valence can best be studied by constant reference to the table. The group notion becomes fixed in the mind. We study everything else by groups. It is natural for the child to see that since sodium, potassium, and lithium atoms are alike in other respects, they would likely be alike also in their power of combining with other atoms. Valence can be likened to hands. Atoms of elements of groups 1 and 7 have only one hand each and can consequently grasp but one hand or atom of another element. Atoms with two hands can grasp the one hand of two one-handed atoms. Groups 2 and 6 contain elements whose atoms have two hands each. When these hands are filled, everything is satisfied and a stable body results.

The equations of acids, bases, and salts (when the substance is dissolved in water) may easily be understood in regard to their reactions

by writing each formula with plus and minus marks above the two ions of the formula, e.g., $\overset{+}{Na}\,\overset{-}{Cl}$, $\overset{+}{Na}_2\,\overset{--}{SO_4}$. It should always be kept in mind that the positive part of the formula is always written first and that the positive charge on the solution always rests on the one element at the first of the formula. The only positive radical is the NH_4 group in ammonium compounds. The pupil soon realizes that if a reaction occurs it always consists in the union of the positive of one compound with the negative of the other compound. Two illustrations follow:

$$\overset{+}{H}\overset{-}{Cl} + \overset{+}{Na}\,\overset{-}{OH} \longrightarrow HOH + Na\,Cl \quad (H_2O)$$

$$Ba\,\overset{-}{Cl}_2 + \overset{+}{Na}_2\overset{--}{SO_4} \longrightarrow BaSO_4 + 2\,NaCl$$

Not only does this plan simplify the matter of working out equations but it early introduces the pupil to the great ionic theory (which theory has certain very important defects, but with its imperfections it more nearly explains more chemical reactions than any other theory).

The manner of determining molecular weights is fascinating to the pupil who has been taught in such a way as to love the insight into natural phenomena. The manner of determining molecular weights is not difficult when the pupil realizes that the methods are different for matter in the three phases. Thirty-two has been accepted as the molecular weight of oxygen, inasmuch as each of the five ordinary gaseous elements have each two atoms in the molecular, and the atomic weight of oxygen has been arbitrarily assigned as 16 so that hydrogen may have as much as 1 unit for its atomic weight. Now to get the molecular weight of oxygen we find out how much volume of oxygen is needed to weigh as many grams as there are units in the accepted molecular weight (32 units). This volume has been carefully determined as 22.4 liters. Now Avogadro's hypothesis asserts that equal volumes of gases contain equal numbers of molecules. Hence, all that is necessary to determine the molecular weight of any gas is to find the weight in grams of 22.4 liters.

For a liquid we volatilize a weighed amount of the liquid and get the volume of gas it makes. From this data we find how many grams 22.4 liters of this gas weighs. For a solid we dissolve a small weighed amount of the solid in a liter of water and find how much the freezing point is lowered or the boiling point is raised. It is known how much they should be changed for molar concentrations for non-electrolytes. A proportion can be worked out to obtain the molecular weight. If the pupil feels that he is assisting in doing one of the great classical experiments he will take a delight in attempting to obtain correct results. The introduction of a few of these fundamentally scientific experiments gives tone to the laboratory exercises and prevents this important part of the work from becoming a humdrum. For after all the real place to learn science is with the phenomena themselves, however much aid textbooks and reference books may be.

Children's minds are inquiring. Chemistry is a search. These facts should make chemistry one of the most appealing subjects for the child if it is properly taught. Children ask questions of others and of themselves. They want to know what makes bread rise, what are the elements

of plant food which makes them grow, how is glass made, where does gasoline come from, why does mortar set, how is iron extracted from the ore, where does rubber come from? These questions give the opportunity for an introduction into the various chemical industries and their vital relation into human comfort and welfare.

Suggested Field Trips

Visits to: A cigaret factory, a towel mill, a wood pulp mill, a water plant, a gas plant, a soda pop factory, an ice plant, a maple sugar factory, an aluminum plant, a pottery plant, a mica mine, a feldspar mine, an iron mine, a granite quarry, an oil mill, a fertilizer plant.

Films For Use in Chemistry Instruction

The Blast Furnace and Pig Iron: Steel; petroleum; sugar refinery; carborundum; the manufacture of aluminum; the manufacture of white lead; fixed nitrogen at Muscle Shoals.

Many others may be used and are available through the various sources mentioned under visual instruction.

Suggested Topics in Chemistry

The atmosphere; water; chemical equations and solution of problems; neutralization; clay and its products; sodium and its compounds; nitrogen and its compounds and the air; the Halogen family; carbon and its compounds; fertilizers; gaseous and liquid fuels; colloids; calcium and its compounds; explosives; paints and varnishes; pigments; fertile fibers; dyeing; cleaning agents; photography; food constituents.

Reference Books and Magazines

Soddy—*The Interpretation of Radium* (G. P. Putnam).
Slosson—*Keeping up With Science* (Harcourt-Brace Co.).
Woodhull—*The Teaching of Science* (Macmillan Co.).
Millikan—*The Electron.*
Journal of Chemical Education.
Chemistry in Agriculture.
Chemistry in Industry (vol. 1).
Chemistry in Industry (vol. 2).
Chemistry in Industry (vol. 3).
Slosson—*Creative Chemistry* (The Chemistry Foundation, 81 Fulton St., New York. Free on request).
Life of Pasteur.
The Amateur Photographer's Handbook (Crowell).
How to Make Good Pictures (Eastman Kodak Co.).
The Fundamentals of Photography (Eastman Kodak Co.).
Elementary Photographic Chemistry (Eastman Kodak Co.).
Photography for Summer Camps (Eastman Kodak Co.).
Within the Atom (Mills).
Chemistry in Daily Life (H. Grevel & Co., London).
School Science and Mathematics.
Discovery—The Spirit and Service of Science.
The Riddle of the Rhine.
Medicine in the Age of Chemistry.

VOCATIONAL EDUCATION

HOME ECONOMICS

This course has been organized so as to cover two years of work and is designed for the first two years of high school. The work, as outlined for the second year, is based upon that of the first year, and neither will be complete without the other.

The class in Home Economics should meet daily as in any other high school subject. Since this is a laboratory course the periods should be double, or 90 minutes, in length. These periods being double, there should not be required the same amount of outside preparation that is expected for a single recitation period, but only such outside preparation as is expected for any laboratory course, as the keeping up of notebooks, etc. Inasmuch as not *every* lesson is accompanied by laboratory practice, the 90-minute period in such case should be spent in a combination of recitation and supervised study with free use of reference books, charts and educational exhibits.

Credit—If the course in Home Economics is given in five periods per week of 90 minutes each and covers the subject-matter outlined below, it should receive one unit credit for each year, and this unit should be one of the regular high school subjects pursued during that year.

Most of the colleges are today accepting two units of Home Economics for entrance to the Bachelor's Degree, provided the work done is approved as a standard course.

First Year

A. Food Work—60-70 Lessons

The food work of the first year centers around the planning and serving of the three meals—the breakfast, dinner, and supper. The foods utilized are considered as to cost, production, manufacture, composition, place in the diet, etc. In the preparation of food, principles of cookery and proportions are given emphasis rather than recipes. Type meals are served and in connection with these table settings and service, dining-room etiquette and the care of the dining-room are gone into with such detail as is necessary for the successful carrying on of the work. If deemed advisable a few canning and drying lessons may be given in this year. In all instances the girl is urged to make practical at home the work learned at school and is given credit at school for successful home work.

B. Clothing and Related Art—90-100 Lessons

The clothing work for the first year is apportioned approximately as follows: laboratory uniform 15 lessons, underwear 15-20 lessons, outside clothing 30 lessons. With the construction of each garment, care and repair of clothing, personal hygiene, textile selection, appropriateness as to individual, occasion, and pocket-book are given emphasis as applied to the problem at hand. Color, line and design should be taught with the making of each garment. This affords an opportunity to apply the principles learned. In this way the work in costume design is not isolated, but definitely related to whatever work the student may be undertaking.

Since the economics of ready-to-wear clothing plays a vital part in the family wardrobe due emphasis is given to this topic. The construction of a number of fancy garments is discouraged and stress is placed upon practical and appropriate clothing, and care and hygiene of clothing—this necessarily includes lessons in laundering.

C. THE HOUSE, THE HOME, AND THE FAMILY—30 LESSONS

Approximately 30 lessons during the first year should be given over to the study of Home and Community Problems. At this time lessons on what the home economics course should mean to the home and community; personal and community health; general problems in housewifery, marketing and shopping, and good manners and simple entertaining should be taught.

Second Year

A. FOOD PRESERVATION

This work begins with a study of micro-organisms, why foods spoil, methods of preventing spoilage, etc. Canning by the different methods, judging and scoring of canned products, and comparison with commercial products are all considered. Jelly making, preserving, pickling and drying are also taken up in this year.

B. CLOTHING AND RELATED ART—70 LESSONS

The clothing work of the second year is divided approximately as follows: Study of the budget, 3 lessons; tailored garment, 10 lessons; wool problem, 17 lessons; the layette, 5 lessons; household linens, 4 lessons; children's clothing, 10 lessons; silk problem, 15 lessons. The systematic expenditure of the family income is studied before the clothing work begins; the girls inventory their clothes, make plans for the year, and are expected to keep personal accounts. As in the first-year clothing work, the idea is to meet the needs of the girl. For instance, when the wool problem and the children's clothing problem are taken up the students are urged to make over garments whenever practical. The study of textiles, costume design, hygiene of clothing, etc., are continued.

C. HOME PLANNING AND FURNISHING—20 LESSONS

The approach to this problem is through a study of the girl's bedroom. Floors, woodwork, walls and ceiling and their treatment are considered. This is followed by study of color in rooms, study of furniture, furniture arrangement, pictures and their choice, framing, hanging, etc. There are also several lessons on the exterior of the house and grounds.

D. FOOD AND NUTRITION—60 LESSONS

A study of value and cost of foods, of body requirements, as influenced by activity, age, size, climate, health, etc., the value of milk, fresh fruit and vegetables, the school lunch, and the planning and preparing of family dietaries are some of the more important problems that are studied in detail. This is followed by a study of digestive disorders, feeding in fevers, convalescent diet and food in infectious diseases. The teacher and home economics classes are urged to coöperate with the health department in correcting malnutrition in their school.

E. Household Management—20 Lessons

It is not planned for this part of the home economics work to be isolated but to be covered during the course of the year as the need arises. For instance, after serving a meal, there should be a lesson in removal of stains from and laundering of table linen. The daily and weekly care of the different rooms, the scheduling of housework, home laundering, removal of stains, management of household finances and a study of labor-saving devices are some of the problems considered.

F. Home Nursing—10 Lessons

This includes a study of diseases, their cause and prevention, promotion of health in the home, care of children, treatment of common ailments and emergencies. Close coöperation with Red Cross aids materially in the teaching of home nursing. In the majority of cases the services of a nurse can be obtained.

G. Child Care—10 Lessons

The approach to this problem should be through a study of the children in the families represented in the class and those in the neighborhood. It includes the physical development, care, and training of young children. The food and clothing lessons pertaining to this phase of work are included in the outlines for food and clothing.

Note: A detailed syllabus of this course of study may be secured by applying to State Department of Public Instruction, Division of Vocational Education, Raleigh, N. C.

AGRICULTURE

Aim—The purpose of instruction in vocational agriculture is to prepare boys for the business of farming and for a happier and more useful life on the farm; to give farmers and boys who have stopped school, training that will make them more efficient in their life work, and to make the county a better place in which to live.

Organization—The vocational agricultural course may be fitted into any high school curriculum which meets the conditions for approval by the State Department of Public Instruction. The course of study in high schools for regularly enrolled pupils shall not be less than two years nor more than four years in length. A minimum of eight months shall constitute the school year.

Amount of Time Devoted to Agriculture

1. The state plans for vocational education, which is an agreement between the Federal Board and State Board, requires that 450 minutes a week be devoted to teaching agriculture, this to include recitations and supervised study, laboratory work, field trips and shop work.

2. A home project or practical work, suited to the needs of each pupil and closely related to the classroom instruction, must be carried to completion.

Types of Instruction

The teacher of agriculture will be expected to carry on four types of work in the community.

1. The all-day instruction in agriculture for those boys in school fourteen years of age and older who elect the course, and provide for carrying on supervised practice work. The instruction for this group shall not be less than two years nor more than four years in length. A minimum of eight months shall constitute the school year.

2. Part-time classes for those boys in the community who have left school and are at work on farms. These boys may be induced to return to school during the winter months when farm work is light and take courses in agriculture along with instruction in English, Mathematics, Science, etc.

3. Day unit courses for the mature boys both in the central school and outlying elementary schools, who are not ready for and may never reach high school.

4. Evening class instruction for adult farmers who are willing to come together for organized group instruction, and to carry on practical work related to the instruction under the supervision of the teacher of agriculture. These classes usually meet during the winter months. Ten lessons is the minimum number for one course. This instruction is based upon the needs of a particular group of persons who are desirous of improving their methods of farming. The content and length of the course are determined by the needs of the persons to whom the instruction is given.

The Course of Study—(Four-Year Course)

In order that the course in vocational agriculture may be of the most practical value to the community in which it is taught it is essential that the course should be closely correlated with the type of farm prevailing in that community, and be closely tied up with the local agricultural problems. Therefore, it seems unwise to standardize the course for the state. If the course is offered in a school located in a community where livestock enterprises form the major interests of the farmers the course should be built around these enterprises and all farm enterprises should be taught as they relate to the livestock enterprises and contribute to their success. With a view to building a course of study adapted to local community needs, it is suggested that each agricultural teacher work out a course of study, under the direction of his district supervisor, that will be vocationally appropriate for the community where he is teaching. All such courses shall be subject to the approval of the State Supervisor of Agricultural Education.

FIRST YEAR (EIGHTH GRADE)

In the first year course the more important and elementary jobs of the leading enterprises should be grouped in teaching units. For example, seed selection, judging livestock, simple fertilizer problems, simple feeding problems, etc.

SECOND YEAR (NINTH GRADE)

Using the information gained in the first year together with the pupils project experiences as a basis, the second year may be devoted to a continuation of the first year's work except that more complicated problems may be studied and special study may be devoted to problems growing out of the previous year's supervised practice work.

THIRD YEAR (TENTH GRADE)

During the third year the pupils should, by reason of previous study and experience through his supervised practice program, be able to appreciate some of the more difficult problems of management, breeding, feeding, soil studies, home ground improvement, etc.

FOURTH YEAR (ELEVENTH GRADE)

The fourth year course should be devoted to the more difficult managerial problems concerning the whole farm business, a round up of the four years' work and study of special individual problems growing out of the individual's experience as a student and farmer.

Farm Shop—Farm shop work forms an integral part of the instruction in agriculture. The farm shop work should teach the student, with such tools and equipment as the average farmer may be expected to have, how to do the ordinary construction and repair jobs that arise on the farm. The farm shop work will not answer for a course in manual training nor vice versa.

Some farm shop work is given each year throughout the four-year course. The farm shop work for each year is closely correlated with the instruction in agriculture that is being given that year. For example, if animal husbandry is being taught the farm shop work might consist of building hog and poultry houses, self-feeders for hogs and poultry, feed troughs, gates, etc. Other exercises that may be included in the shop work are mending harness, painting, concrete work, repairing farm machinery and engines, rope work, belt work, metal work, soldering and tinning, pipe cutting and plumbing, glazing, drawing, forge work, etc.

The shop work in any school should be based upon the needs of the pupils. These needs may be determined by a farm shop survey of the pupils' home farms. It is suggested that approximately 20% of the total teaching time for agriculture be devoted to shop work. Forge work, repairing engines and complicated pieces of machinery and the more difficult construction jobs should be taken up during the fourth year.

Supervised Practice or Project Work—Agriculture is both a science and an art. To farm successfully a person must know how to do the various farming operations as well as why they should be done. The practical or project work enables the pupil to learn by doing. The project is a part of the agricultural instruction and is required of each pupil. No student should be given full credit for the year's work if the project work is not completed.

The practical work may be carried out on the pupils' home farms, the school farm or some other approved tract.

Each student should be supplied with sufficient land or animals, or both, to give opportunity for practice and project work under conditions which conform as nearly as possible to farm conditions, in order that he may be fitted to farm successfully.

The essentials for supervised practice work are:

1. The supervised practice program must be built on local farming types.
2. Every region or locality has its major and contributory enterprises around which the practice program should be developed for the locality and particular student in question.
3. Contributing enterprises should be built into the supervised practice program in order to reflect a cross-section of the farming type, and
4. The supervised practice in the mechanical control processes should be selected as is pertinent to the farming type of the locality.
5. Parents, pupils and teachers should agree upon the plan for the supervised practice program.
6. Records must be kept by the pupils and a report submitted to the teacher.

Pupils who are not interested in or cannot make arrangements to carry on the practical work should not be admitted to the agricultural classes.

The Work of the Teacher of Agriculture

From the foregoing discussion of the organization of Vocational Agriculture it is evident that a somewhat specialized teaching technique is essential to effective work. Not only should the teacher be able to carry on the classroom work, much of which is specialized, but he must teach farm shop; supervise the home projects; carry on community work, such as arranging and teaching part-time and evening classes, answering questions of the farmers, etc. With all of these responsibilities resting on the teacher of agriculture, two things are indispensable to his salvation: adequate technical and professional preparation and a thorough organization of his work.

Because of the varied activities of the teacher of agriculture, the planning and organization are not simple and easy tasks, involving, as they do, the assembling of materials and planning in detail the farm shop exercises; giving instruction in essential manipulative skills; supervising the boys' home projects; managing the land laboratory; and last, but by no means least, the planning of his classroom work, including recitation, supervised study, laboratory, field trips, project study and planning, and the preparation of illustrative material.

It is important that the courses of study be carefully prepared before the opening of school. In order to adapt the courses to the needs of the community and to the particular group of boys, it will be necessary to make an outline of the work to be covered during the year, rather than to accept a textbook outline, or any other outline not suited to the conditions prevailing in the particular section served by the school. Such an outline should include: the subject-matter carefully selected, arranged in seasonal sequence and with the time emphasis indicated for each division and subdivision; laboratory and field exercises; shop projects

correlating with the subject matter as far as possible; a list of the best book and bulletin references bearing on each division; a list of objective points for field trips; and the illustrative material to be used. This does not mean that a textbook is not used, but that the sequence of the textbook is not followed unless it happens to conform to the seasonal sequence of the teacher's outline.

The method of the class period is selected to suit the topic. For one topic the 90-minute period may be divided between supervised study, laboratory and recitation, while for another topic the whole 90 minutes may be devoted to laboratory.

As far as possible the subject study and the project study and planning should be carried along together, both, of course, following a seasonal order. For example, when the feeding of poultry is taken up, boys having poultry projects study the feeding problems, and plan definitely for the feeding of their own flocks. The marketing of poultry should be studied at the time or just before poultry is usually marketed on a large scale, as at Thanksgiving time. Experience shows that the project work serves to vitalize the instruction. Therefore, the more subject-matter that can be connected directly with the boys' projects the better. In fact, as far as possible, the home projects should serve as the center of instruction.

Another essential undertaking of the teacher is the making of daily lesson plans. Flexibility in the form of the lesson plan is desirable for the various forms of method, but in general a good plan should contain: the subject and aim of the lesson, the scope of the subject matter, the method to be employed, the necessary preparation on the part of the teacher, the materials necessary, and the assignment, including references.

One of the advantages of vocational agriculture is that the boys have a good background of experience from which to draw. This enables them to bring to the discussion opinion based on observation—sometimes very accurate observation. This increases their opportunity to make comparisons and to draw deductions of their own. If this experience is properly used by the teacher, the value of the class exercises may be judged more by the pupil-activity and the opportunity for growth than by the learning of mere facts. However, when facts are learned they are usually learned for a definite purpose, and with the idea of using the facts at once or in the very near future. And this suggests to us another advantage, an early opportunity to put into practice the thing learned.

The teacher of agriculture should be able to employ skillfully approved modern methods, such as topical and socialized recitations, supervised study, project teaching, laboratory, and field trips.

In agriculture the field trip is very important, but unless carefully planned and conducted much time is wasted. Objective points should be selected and visited by the teacher before the trip, making sure of the teaching value of the places to be visited and making all arrangements necessary for the greatest benefit to the class. The teacher should prepare an outline including the aims of the trip, and noting all points to be observed, data to be gathered, questions to be asked on the trip, and directions for reporting the exercise. Frequently some preliminary study will be necessary. The trip should be conducted in such a manner that its importance will be thoroughly realized by the pupils. The pupils' at-

tention should be held on the subject from beginning to end. This can usually be done by a preliminary discussion and study and by planning various things to be done, as collecting specimens and making close observations on definite points, and recording data. Pupils should also be encouraged to ask good questions. At the end of a trip, if time permits, or at the next class meeting, a review should be conducted, bringing out definitely the essential points, or using the information gathered in some practical problems or in the solution of a class problem already under way. Field trips can be made not only an excellent means of training and of acquiring information, but of real inspiration. Often a visit to a successful farm will give a boy a vision of the possibilities of farming which he might never get in the classroom, and be the means of changing his whole attitude and outlook, both with respect to school work and to the vocation of farming.

Laboratory work should serve an important purpose in agricultural work, but in organizing it we need to take into consideration the educational opportunities afforded by it, and not permit it to degenerate into meaningless and perfunctory exercise. It should afford opportunity for distinguishing, valuing, selecting, arranging and using knowledge, for discovering and formulating concepts, and for acquiring desirable experience in farming operations.

We are coming to realize (slowly) the real value of supervised study. The danger here is to use the time for study, which is not carefully planned and supervised. Agricultural work offers an excellent opportunity for supervised study but it requires considerable work on the part of the teacher to plan for it and to carry it on successfully. Exercises should be planned having in mind certain definite aims in the improvement of study, as the improvement in the rate and comprehension in silent reading, the use of questions in study, the value of organizing and reorganizing subject-matter for definite purposes, and others which might be mentioned if space permitted. Some of the dangers in supervised study are:

Making pupils too dependent by helping too much.

Tendency to waste time instead of giving real supervision.

Tendency not to use the opportunity to provide for individual differences.

Tendency to leave pupils too much to the disposal of their own time.

Tendency for teacher and pupil to talk too loud and disturb other pupils studying.

Tendency for teachers not to familiarize themselves sufficiently with the improved methods of study, and not to study and plan specifically for the supervised study period.

TRADES AND INDUSTRIES

If our high schools accept the obligation for the education of all the people they will be interested in the organization of DAY TRADE CONTINUATION SCHOOLS.

I. Day Trade Schools or Classes

The controlling purpose of the Unit Trade school is to fit for useful employment in a specific trade or vocation those students who are leaving or have already left high school. This type of class should not be confused with Industrial Arts or prevocational courses ordinarily given in the high schools, for this course is intended for the boy who has made up his mind to enter the trade in which the instruction is offered. It takes the place of the apprenticeship system and starts the student off in his chosen trade rather than allowing him to drift into a blind-alley job.

The following regulations apply to the day trade school:

1. Students must be at least fourteen years of age.
2. The equipment must be adequate for conducting the course in keeping with commercial shop standards.
3. The local school authorities must provide funds for maintenance and a part of the salary of the instructor (one-third required 1926-'27).
4. The course of study will be planned to meet the needs of the community. The time to be divided as follows: (a) Practical work on a productive basis—50 per cent; (b) Related vocational studies, approximately 25 per cent; (c) Academic studies, 25 per cent.

2. Part-time Schools or Classes

This type of school is organized for persons over 14 years of age who have left school, entered employment and are released during the regular working hours for the purpose of instruction. According to the Smith-Hughes act, anything may be taught which will improve the vocational or civic intelligence of the pupil. Three types of instruction may be given.

1. General Continuation

General Continuation Part Time Classes have for their purpose increasing the "Civic or Vocational intelligence" of workers. This type of school is intended for boys and girls who have left the regular school and gone to work, but who have not enough general education to get very far in their life work. The instruction must be made to fit individual cases.

Type Courses

a. Courses in *General Education* may be organized for boys and girls who have left school and entered employment which is general in character such as messengers, drivers, helpers and general home work. The work will emphasize the regular day school studies which will be of most service to them in what they are doing or expect to do. Some boys and girls have left school because of conditions beyond their control. Often these are the best students of the school system and lack very little for graduation. Under careful direction these pupils will be able to complete at least their high school work and perhaps go to college later.

b. Courses in *Shorthand, Typewriting* and *Office Practice* may be given to a group of young men and women who are not in school but can give some time from their work to these subjects which will assist them in the job they now hold, or as in most cases prepare them for a better position.

2. TRADE PREPARATORY

Schools of this type are organized for the purpose of helping the boy to get the related information which he needs in the trade which he expects to enter, or in many cases the trade in which he has entered but is not able to advance on account of the lack of the related information. The latter makes up the third class mentioned above which is designated as *Trade Extension.*

REGULATIONS

1. The work must be under public supervision and control.
2. The controlling purpose is to fit employees for further useful employment.
3. The Federal and State Vocational funds can be used for salaries of teachers only. The local school authorities must furnish buildings and equipment necessary for conducting the course and also a part (one-third in 1926-'27) of the salary paid to part-time teachers. Wherever a full-time teacher is not required the part taken up for continuation school work will be prorated.
4. The pupils must have left school and entered employment. The time of instruction must be during the working day.
5. The minimum age for part-time pupils is fourteen. No upper age limit is specified.
6. The school is organized on a basis of a minimum of 144 hours per year. The students may come week about, day about, or half-day about or at certain periods each day. Many schools giving a business course arrange with the employers to let their employees off at noon so that they can get lunch, spend an hour in school and get back to their work at 1:30. Others find that a period beginning at 8:30 A.M. is preferable, as they are not so busy. This arrangement applies to department stores where courses in salesmanship are given. Classes are sometimes arranged for dull seasons or shut-down periods where students, out of employment temporarily, may spend a month or more solid time in school or perhaps three days per week, in classes especially provided for them.

NOTE—Schools interested in the above types of work or in organizing EVENING TRADE CLASSES should communicate with the State Supervisor for Trade and Industrial Education who will be glad to assist in working out the plans. Both Federal and State funds are available for courses outlined above.

INDUSTRIAL ARTS

Industrial Arts in the secondary school has a very important place in the life of our boys as it functions in helping to select and prepare for their future work. It naturally falls into two large classes in way of its adaptation to the group found in the high schools. In the first case, the chief consideration is that of general education with opportunities for orientation through the study of and experiences in the industries of the world, while in the second case the emphasis is largely vocational, permitting more extensive effort in the preparation for the line of work for which the individuals or groups find they are best adapted.

It is to be clearly understood that the purpose of Industrial Arts is not to prepare tradesmen but to create industrial intelligence, insight and appreciation of the work of the world and its relations to man. The result will be more discriminating consumers who have a thorough understanding of their demands and an appreciation of the intelligent and efficient use of the material things of modern life, whatever occupation the student may follow. To these may be added the specific values to be obtained by those whose ambitions lead them into industrial occupations.

The worthwhile course in Industrial Arts must be rich in informational content, involve such instruction and practice as is fundamentally and scientifically correct, hold a degree of general interest, and require the use of intelligence in the handling of tools and operations.

Doubtless the greatest factor is the teacher who must have a thorough appreciation of the purposes of the school and be able to carry out its objectives and at the same time know thoroughly the industries he is to teach in order that the adjustments between school and life may be given full understanding.

In the larger school systems it is possible to have completely equipped shops large enough to handle whole classes in a single type of work as wood-working, printing, sheet metal or machine shop. In the smaller school the use of the "general shop" where several types of work can be taught at the same time has been found most successful. It is very essential that in each case the selection of the type of shop to be used be in harmony with the needs of the community. Certain types are useable in all communities but others are not. Where the predominating interests are in textile manufacturing, this line of activity needs attention while in another case where the chief interests are in printing attention should be given to a print shop.

Suitable rooms should be selected where adequate light and ventilation are possible. Equipment should be modern with proper spacing between desks, benches and machines. Safety devices and guards should be provided and all precautions taken to prevent accidents. Suitable lockers and toolroom space must be provided for protection of tools, clothing, and supplies. The formation of right habits and correct procedure are as important here as in any other department of the school.

The lesson period should be that of two regular periods of the school, 90 minutes, and the class should meet two or five times per week, according to the purposes to be served and the time and equipment available. During the early high school period the time should be about equally divided between shopwork and drawing while in later high school the

double period could be given to shopwork and an additional period be utilized for mechanical drawing. In case it is desirable to plan a combination of shop and drawing work it can be done.

TIME SUGGESTION

GRADES 8 AND 9

Two 90-minute periods per week for shop and drawing with an additional elective of three 90-minute periods divided between shop and drawing, for those boys who are expecting to go directly into industry or who are preparing themselves for engineering careers.

GRADES 10 AND 11

Two 90-minute periods per week in either shop or drawing, or five 90-minute periods per week divided between shop and drawing for those who are expecting to go directly into industry or who are preparing themselves for engineering careers.

The amount of work that can be carried in a given grade or given period of time is, of course, problematic. With the same conditions, the work will differ under the instruction of different teachers. It is, therefore, essential to the organization of the work that definite limitations be fixed as to the principles that shall be covered in any one grade.

Suggested Outline of Courses

WOODWORKING

JOB	MOTOR SKILL	TECHNICAL KNOWLEDGE
1. Involving the use of simple joints, as butt, lap, miter, mortise and tenon, and dowel.	Prepare surfaces for finishing. Lay out work from drawings. Use, care for, and sharpen common tools. Repair woodwork.	Figure bill of material. Names and characteristics of common woods. Sizes and uses of fastenings and hardware.
2. Involving laying out, cutting and putting together common construction work.	Use and proper care of tools. Lay out and cut framework for common construction, such as joists, studding, rafters, etc.	Ability to read blue prints and take off bills of material. Names of standard stock used in construction. Types of building construction. Safety precautions. Factors in selecting and laying out the foundation for a building.

JOB	MOTOR SKILL	TECHNICAL KNOWLEDGE
3. Involving the finish of surfaces.	Proper use of brushes for filler, paint, stains, and varnishes. Ability to properly apply for desired results.	Kinds of stains, fillers, paints and varnishes for certain uses. Characteristics of finishes. Sources and preparation of ingredients used in finishing materials.
	METAL WORKING	
A. Sheet Metal:		
1. Involving forming, riveting, folding, wiring, and soldering.	Use and care of common tools such as soldering coppers, tin snips, fire pots, scrapers, etc. Ability to solder, rivet and operate small tools.	Methods of manufacture of sheet metal and common sizes. Kinds, uses, and composition of fluxes. Lay out and transfer of patterns. Air systems and their construction.
2. Involving the use of floor machines and construction of larger pieces.	Ability to use brake, mandrel shear and other tools in the larger operations, also the small and special tools for particular lines of work.	Construction of patterns from blue prints. Taking off bills of materials from blueprints and drawings. Computing the sizes of conductors and receptacles.
B. Machine Shop:		
1. Involving the use of the bench tools.	Correct use and care of the tools used in common for measuring, sawing, chipping, and filing.	Different kinds of metal used on the bench with their common sizes and uses. A thorough acquaintance with the measuring tools as calipers, squares, gauges and protractor.
2. Involving the use of the drill, drill press, shaper, and lathe.	Ability to use drill press, shaper and lathe. The proper care of tools and their uses. Use of more accurate measuring tools.	Ability to work from blue-prints and taking off bills of material. Figuring of speeds and feeds for metal cutting. Ability to use micrometer and make correct readings. Proper lubrication and care of machines.

JOB	MOTOR SKILL	TECHNICAL KNOWLEDGE
3. Involving the work of assembling, fitting, slotting and fastenings, and hardening.	Ability to do careful filing, chiseling, drilling, tapping, hardening and annealing.	Checking from blueprints. Laying out with accuracy. The effects of heating in hardening and annealing metals. Figuring of sizes and strength of materials and the use of particular materials for special jobs.
	ELECTRICAL WORK	
1. Involving the wiring of bells, call buttons, enunciator systems, and coils and motors.	The ability to measure and cut wire and properly splice, solder and tape. Ability to make connections as indicated by wiring diagrams and blue-prints.	Magnetic forces and electrical currents. The principle of the motor, generator, and magneto. The principle of the battery. Conventions used on wiring diagrams and common methods of installation.
2. Involving house wiring, open and closed types.	Ability to install knobs, cleats, loom, tubes, outlets, switches, and fixtures. Ability to make splices, install conduit and draw in proper wiring.	Knowledge of national electric code, state and local rules and regulations. Electrical measurements, reading of meter and figuring costs from meter readings.
3. Involving the repair of electrical appliances.	Ability to locate trouble, take apart, repair or replace defective parts, test and put together.	Principles of heating units. Principles of automatic electric controls. Figure costs of material and labor.
4. Involving telephone installation and repair.	Ability to install simple telephone systems, locate trouble and make repairs. To use electrician tool outfits.	Principles of sound transmission by electric currents. The kind and quality of materials to use. The principles of control and safety devices.

AUTO MECHANICS

JOB	MOTOR SKILL	TECHNICAL KNOWLEDGE
1. Chassis: Frame. Springs. Wheels. Axles. Steering device. Brakes. Clutch. Transmissions. Differential.	Ability to measure and test different members. Ability to take apart, repair or replace broken or worn out parts, to make adjustments when needed, and handle properly all tools used in connection with these parts.	Names and uses of the various materials used in the construction of parts, the mechanical principles involved in the working of the different parts as brakes, clutch, transmission, differential and steering device.
2. Motor: Block and moving parts.	Ability to take apart, locate trouble, make adjustments, repair or replace parts. Measure and test with accuracy. Ability to use tools with care and make adjustments that are not too tight or loose.	Names of parts and their functions. The theory of internal construction of engines, and principles of operation. The figuring of horsepower.
Carburetor.	Ability to adjust, take apart, repair or replace parts.	Understand the principles of carburetion and methods of control.
Lubrication.	Ability to repair and replace parts, clean systems and make adjustments.	Understand the theory of lubrication, and proper selection of lubricants.
Cooling systems.	Ability to use tools in making repairs and replacements.	Understand the principles of cooling by water and air, the use and application of auto freezing mixtures.
Ignition. Lighting. Starting.	Ability to test, make repairs, replacements and adjustments in electrical equipment of automobile.	Understand principles of electric *circuits, insulation, controls,* and measurements. The principles of batteries, generators and motors.
Tires.	Ability to properly make changes and repairs, using the most modern tools.	Understand the construction of tubes and casings and methods of repair.

CONCRETE WORK

Job	Motor Skill	Technical Knowledge
1. Involving the construction of footings, walks, and floors, and special features.	Ability to use common tools, operate concrete mixing machinery, run and establish levels, build forms and make mixtures.	Understand the principles of cement manufacture and use. The theory of mortar and concrete. The methods of handling and storing. The theory of reënforcing and elementary principles of construction, the making and reading of blue prints.

PLUMBING

1. Involving the repair of plumbing fixtures about the home and installing fixtures.	Ability to use the tools on finished and unfinished fixtures. To measure, cut, thread and connect iron pipe. To test and repair or replace fixtures. To wipe lead joints and use lead pipe where it is necessary.	Understand the theory of water and drain systems. Know state and local sanitary codes, the methods of testing. Know the classes and names of plumbing equipments used in the kitchen, laundry, bathroom, and heating plants.

PRINTING

1. Involving learning the case.	Ability to pick up the desired type and to place the letters in the proper space. Ability to hold composing stick, and set type, empty type from stick and place on galley.	The learning of the different kinds of types, how type is made, its sizes and appropriate uses. Learn the names of the different parts of a stick of type, the measures used in typesetting and elementary principles of design.
2. Involving spacing and justification.	Ability to measure quickly with the eye the adjustments for proper spacing. Expertness in removing or replacing spaces and quads and keeping type from falling while the work is being done.	Spelling, punctuation, capitalization, and division of words. Learning the meaning and application of the point system. Study indentation and the selection of initial letters. Principles of design and spacing for specific purposes.

Job	Motor Skill	Technical Knowledge
3. Involving the distribution of type.	Ability to care for inked type, handle type in putting on galley, and transfer from galley to stick, and pick up separate pieces and deposit in proper section of case. Properly use and care for tools used in this work. Handling new type before laying.	Same as in cases above.
4. Involving the taking of proofs and getting job ready for press.	Ability to handle and care for tools used in getting job ready for press, to take galley and stone proof, to make changes shown by proof-reader's marks and properly lock up and transfer from stone to press.	Understand the measuring of proof-reader's marks. Learn how to read proof and correct copy. The history of printing and its effect on civilization. Drawing and design related to cards, tickets, letterheads and solid matter. Figure costs and materials.
5. Involving presswork.	Ability to properly care for and operate the press in all of its workings, set gauge pins and grippers. Put forms into press, apply ink, and feed the press.	Understand the principles underlying the work of the press. How inks are made and used. The problems of proof-taking, the value of wood and steel brasers in a form. The principles of making ready. The trade terms in various branches of the trade and their uses. Figure costs and materials. Use of cuts and how they are made.

JOB	MOTOR SKILL	TECHNICAL KNOWLEDGE
6. Involving the cutting of stock.	Ability to operate the various tools used in cutting paper stock.	Understand the methods of cutting stock, the figuring of costs of materials. Know the sizes and weights of stock and what they are used for. Keep stock records, make up lists of materials for special jobs and figure costs.
	TEXTILE WORK	
Involving hand loom weaving.	Manipulative processes, such as preparing the warp, drawing in the warp, threading shuttles, beating up the filling, and tying the broken warp threads.	Names of the parts of the loom, study of fibers, study of different yarns and their uses, simple designs and colorings used in fabrics.
Involving power loom weaving (plain).	Continue as above, adding starting and stopping of the loom and the operation of shedding and picking motions.	Continue as above, adding calculations for picks per inch in cloth and cloth production.
Involving power loom weaving (fancy, dobby and jacquard).	Continue as above, with added ability of drawing in threads correctly, and the ability to find correct pattern.	Continue as above with more advanced design, knowledge of movements of harness shafts, and knowledge of correct patterns.

NOTE—The operations preliminary to weaving are as follows: opening, picking, carding, drawing, roving, spinning. On fine goods an additional process of combing is used. These operations are not essential in the elementary phases of school work in textiles and should not be used until we come to the vocational aspects where they will be used on a large scale.

MECHANICAL DRAWING

The value of mechanical drawing in our secondary schools has not been given as much consideration as it deserves. The aims are chiefly to develop in the pupil the ability to represent objects by working drawings, interpret the ideas of others as expressed through drawings and blue prints, and to increase acquaintance with related lines of work through which he may be guided in his selection of his vocational

interests. The term mechanical drawing suggests the making of drawings by the use of instruments and is applied to all accurately made drawings as used by the engineer, the architect, the designer and others.

Mechanical drawing has a language of its own, understood by those who are acquainted with its meaning and to those who can read it conveys ideas of wholes and details in more concise form than is possible through the use of the printed page. This language is universal in its use by all nations. There is, therefore, much more in a completed drawing than is seen by one not familiar with its language. When properly taught each lesson carries as much content of subject matter, requires as much effort in accomplishment, and practice and drill for its thorough mastery as other subjects in the curriculum. It should increase the power of visualization and correct expression and inculcate habits of neatness, accuracy, appreciation of mechanical principles, and vocational intelligence.

The mere making of a drawing is but a small part of the work required in working out the problems of the engineer or designer. Before this can be done much time must be spent in study, planning, estimating, and selecting materials and working out principles involved in whatever project is under consideration. The secondary school must confine itself to the mastery of the simple principles and their applications to the problems confronting the classes using it.

The amount of time required for this work varies according to the purposes for which it is used. When it is connected with shop work and forms a part of a unit of work the time should approximate one double period of 90 minutes per week, with an additional elective of three 90-minute periods to be divided between drawing and shop work for those who are expecting to go directly into industry. When drawing is to be used as an independent unit, either as an adjunct to shop courses or in preparation for college, the time allotment should be two to five double periods of 90 minutes each per week.

The teacher of mechanical drawing has a great opportunity to connect this work not alone with the other phases of school activity, but with the industrial world outside the school. He should thoroughly appreciate that his task is dealing with fundamental principles and that he should not spend too much time on the execution of drawings, but rather let excellency of workmanship in this line come by way of practice in working out problems which in themselves demand splendid work. In other words, too much time on geometrical problems and lettering sheets places the emphasis in the wrong place. These are important but with proper thinking first they will be more easily attained. Practice by this method is of interest.

A good grade of drawing paper should be used for finished work. A slightly tinted paper is better than pure white stock. A cheaper grade for free hand sketching and notes is advisable and sometimes coördinate ruled paper is of decided value in preliminary drawings. Standard size sheets of 9x12 inches should be used with top, bottom and right-hand border lines drawn one-half inch from the edges and the left-hand border line one inch from the edge of sheet. This makes working space of 8 inches by 10½ inches. In case of larger drawings a good size is 12x18 inches with 1½-inch border on left edge and 1 inch border on all others.

Some general form should be adopted, either a record strip or title corner for use in a department or system. Good suggestions are given in textbooks. All lettering should be simple but in accordance with the best office practice. The Gothic letter either vertical or inclined 30 degrees from the vertical is considered the most successful. It is best for elementary work that capitals be used exclusively. Practice in lettering is necessary but avoid the use of letter sheets.

Job	Motor Skill	Technical Knowledge
1. Simple drawings involving horizontal and vertical lines with all edges visible.	Ability to place paper properly and draw vertical and horizontal lines with T-square and triangles.	Measurement of sheet, the number of views required, the kinds of lines used and their meaning.
2. Simple drawings involving horizontal and vertical lines with invisible edges.	As above, but with increased accuracy.	Representation of unseen lines and how they are located in the different views.
3. Simple drawings involving inclined lines.	As above, but with use of triangle or T-square or both in drawing inclined lines.	How inclined lines are represented in the different views and how they can be located.
4. Simple drawings involving the use of circles.	As above but with additional use of the compass and skill in drawing center lines, tangents, etc.	The meaning of center lines and how they are located and drawn.
5. Simple drawings of shop problems involving the principles used thus far.	As above, but with increased accuracy and speed.	A further study of materials and methods of construction.
6. Involving the principles of simple projections as related to drawings.	Increased skill and ability in handling the tools.	A further study of the planes of projection and the methods of their use in making drawings. Problems in mathematics involving surfaces and solids.
7. Involving working drawings in assembly, and details.	As above.	A study of the problems of design and an elementary study of strength of materials.
8. Involving details of machine parts.	As above.	Same as above.

9. Architectural — Involving the planning and drawing of simple frame or concrete buildings, including details and specifications.	As above. Note: Use 7 and 8 or 9.	A study of the problems of lay out of buildings, rooms, etc., together with materials used in building. Study of building, sanitary codes, etc.

VOCATIONAL GUIDANCE

In North Carolina much valuable work has been done in individual cases by principals and teachers in the way of directing young people. With our increasingly complex society making greater demands upon those leaving school it is now time to make concerted action in helping each boy and girl to make a definite selection and the best possible preparation to meet the requirements of this decision. Many of our boys and girls drop out of school at an early age without any conception of what they wish to do in life and without preparation for any line of work. They have not seen the meaning of continued school work and either the monetary or appreciative value it holds.

Doubtless one of the greatest values to be attained through Vocational Guidance for any community is the awakening of educational interest to that end that individuals and groups will remain longer in school, making definite preparation for the work they will later engage in. The notion that Vocational Guidance has for its objective the telling of individuals what lines of work they are best fitted for is a mistake, for no person is given the power to direct in this manner the destinies of another. It is, however, the province of anyone to advise and direct another to make his own selection of a life work, show him how he can best prepare for it, and direct him in making progress in his chosen field.

To show the extensive reach of Vocational Guidance work into all activities and the relationships that can be worked out we quote here a definition taken from Dr. William M. Proctor's "Educational and Vocational Guidance," page 242. "Vocational Guidance embraces all those school activities especially designed to assist individual pupils in learning about, choosing, preparing for, entering upon, and making progress in occupations."

The more outstanding points in a school system where it seems best that emphasis should be placed on the selection of a life work may be stated as follows—the early high school, the later high school, thirteen-year-old pupils in the fifth, sixth and seventh grades, special misfit students, continuation schools, coöperative courses and evening classes.

The following allotment of time has been successfully used in projecting this work in several cases. It is advised that at least the following amount be given either in separate periods or jointly with other work as English, History, Civics, or shop work classes. Possibly more time can be found.

Both semesters of 8th year..... one half-hour period per week
Both semesters of 9th year..... two half-hour periods per week

In addition to this there should be provided ample consultation periods for those who are about to leave school for work or think such a step may be necessary soon, those who are undecided as to future courses, and those who are making plans for more advanced work in higher institutions of learning.

The work of the eighth year can be profitably given to the study of biographies of leaders in human endeavors, of the leading type industries and excursions to local mills and factories where such is possible.

The work of the ninth year might well be spent in a very definite study of simple economic problems with a rather definite emphasis being placed on the selection of courses or subjects to be taken during the remainder of the high school period.

If it is found possible, following the work of the general science course, a course in social problems might well be given. This might consist of work during the first half-year in elementary social problems such as are found in Towne's *Social Problems* and followed in the second half-year by a study of occupations such as is given in Gowin, Wheatley and Brewer's *Occupations*, or Ziegler and Jaquette's *Choosing an Occupation*. This will be of particular value to those students who are planning to leave school at the close of their high school course or earlier.

The equipment necessary for this work is essentially that of an ordinary classroom with added library facilities. The following list of books is suggestive for a beginning but to these should be added the newer material and such other books as will meet the needs of the work. It is suggested that books marked * be purchased in sets sufficiently large that each class member can have the use of a book.

Suggested List of Books for Vocational Guidance

FOR PUPILS

Bliss—*Your School and You* (Allyn and Bacon).
Brewster—*Vocational Guidance for the Professions* (Rand-McNally).
Edmondson and Dondineau—*Citizenship Through Problems* (Macmillan Co.).
Giles—*Vocational Civics* (Macmillan Co.).
*Gowin, Wheatley, Brewer—*Occupations* (Ginn & Co.).
Hatcher, O. Latham—*Occupations for Women* (Southern Woman's Ed. Alliance, Richmond).
Holbrook and McGregor—*Our Junior High School* (Allyn & Bacon).
Holbrook and McGregor—*Our World of Work* (Allyn & Bacon).
Jackson—*What Men Do* (Macmillan Co.).
Latham—*Jimmie Quigg—Office Boy* (Macmillan Co.).
Lyon—*Making a Living* (Macmillan Co.).
Lyon and Butler—*Vocational Readings* (Macmillan Co.).
Robinson—*The Find Yourself Idea* (Asso. Y. M. C. A. Press).
Rosengarten—*Choosing Your Life Work* (McGraw-Hill).
Sowers—*The Boy and His Vocation* (Manual Arts Press).
Steel—*Aces for Industry* (Houghton-Mifflin).
*Towne—*Social Problems* (Revised), (Macmillan Co.).
Wanger—*What Girls Can Do* (Henry Holt & Co.).
*Weaver—*Profitable Vocations for Girls* (Laidlaw Brothers).
*Weaver-Byler—*Profitable Vocations for Boys* (Laidlaw Brothers).
Ziegler and Jaquette—*Choosing an Occupation* (John C. Winston Co.).

FOR TEACHERS

Allen—*Practice in Vocational Guidance* (McGraw-Hill).
Allen—*Principles and Problems in Vocational Guidance* (McGraw-Hill).
Bloomfield—*Readings in Vocational Guidance* (Ginn & Co.).
Brewer—*The Vocational Guidance Movement* (Macmillan Co.).
Brewer and others—*Case Studies in Vocational Guidance* (Ginn & Company).
Charter—*The Teaching of Ideals* (Macmillan Co.).
Cohen—*Principles and Practices of Vocational Guidance* (Century Company).
Davis—*Vocational and Moral Guidance* (Ginn & Co.).
Edgerton—*Vocational Guidance and Counselling* (Macmillan Co.).
Gruenberg—*Guidance of Childhood and Youth* (Macmillan Co.).
Vocational Guidance Magazine (Monthly, 8 times a year). (Harvard University, Cambridge, Mass.).
Myers—*The Problem of Vocational Guidance* (Macmillan Co.).
National Society for the Study of Education—*Part II, Twenty-third Year Book* (1924), (Public School Pub. Co., Bloomington, Ill.).
Parsons—*Choosing a Vocation* (Houghton-Mifflin Co.).
Payne—*Organization of Vocational Guidance* (McGraw-Hill).
Payne—*Administration of Vocational Guidance* (McGraw-Hill).
Pittsburgh Public Schools—*Vocational Guidance Bulletin.*
Proctor—*Educational and Vocational Guidance* (Houghton-Mifflin Co.).
Reed—*Junior Wage Earner* (Macmillan Co.).
Teeter—*Syllabus on Vocational Guidance* (Macmillan Co.).
Toops—*Tests for Vocational Guidance of Children* (Teachers' College, Columbia University).

COMMERCIAL EDUCATION

Introduction

The growth and importance of high school commercial education may well be likened to the story of the growth and importance of business itself. Business, as it is seen today, has passed through various stages until it is now an established calling. And so commercial education in the high school has progressed beyond the stage of serving as a by-product plant to use up the rejected material from the academic departments to a place where it is recognized as one of the important types of secondary school education.

This change has come about through organized business requiring better trained employees; through the tireless efforts of commercial teachers to raise standards; through higher requirements of those entering the commercial teaching field; through a greater appreciation of this important work by the public school administrations; and through the scientific planning of commercial curricula.

Dual Objective of Commercial Education

Business is a great social institution. Certain ideals and activities prevail within its limits. To meet these commercial education must be dual in its nature.

First: It must provide specific knowledge and skill that will be usable by the student in his vocation.

Second: It must prepare the student to adjust himself in his relations to society.

The Commercial Course

The high school commercial course should be made to function in the life of every student electing to pursue it. Students electing the commercial course may be classified in one of three groups, namely: those students that will drop out of high school at the end of the eighth or ninth year, those students that will enter the channels of business immediately upon graduation from high school, and those students who will graduate from the high school commercial department and desire to continue their education on through college. In order to provide the greatest good to these three distinct groups of students the committee gave special consideration to the scheduling of those commercial subjects that are introductory in nature, to those subjects that are either skill subjects or highly technical in content, and to those subjects that are classed as necessary subjects in meeting college entrance requirements.

Introductory Subjects—This group of subjects include such as commercial arithmetic, penmanship, commercial geography, industrial history, and junior business training. The introductory or general subjects have been scheduled in the first two years of high school work. It is obvious that the content and nature of the subject matter make them more comprehensible by students of junior age than the more technical or advanced commercial subjects would be.

Technical and Advanced Subjects—Shorthand and typewriting should not be offered before the third and fourth years in high school, and concurrently with advanced English and History, etc. Shorthand and typewriting are high in both skill and technique, and can be of little advantage to students of immature years. They have too limited a vocabulary and background to master the work—making them wholly incapable of editing transcription. Bookkeeping is the ground work of all commercial education. It should be offered in the third and fourth years of high schools when the student is somewhat capable of seeing the subject as both a device and thermometer in the economic world of business.

Elective Subjects—The large group of elective subjects has been provided to meet the vast differences existing between the small and large high schools, and the college entrance requirements should a student in the commercial department desire to continue his college career. The small high schools, with their limited teaching force, can offer few commercial subjects, while the schools with a teaching staff of forty or more teachers will be able to offer a more diversified schedule meeting the needs of individuals or local situations.

Aim and Content of Courses

Junior Business Training—This course is designed to give pupils an understanding of those fundamentals and principles of business which are useful to all persons whatever their occupations; to inculcate habits of thrift and to teach the means that are available to provoke it; to meet a definite and growing demand for business training in the lower grades

of high school without offering advanced types of commercial work to boys and girls of too immature age to profit by taking them; to fit those who must leave school at the end of the eighth or ninth grade for the kinds of positions that are open to them; to serve as a try-out course to the end that the pupil may know whether or not he wishes to continue his commercial career through the senior high school.

The text selected and supplementary work assigned, and the laboratory practice should include sufficient material for a thorough study of the following as a minimum requirement:

Thrift. This topic should offer excellent opportunity for oral talks, projects, and written reports. Reports on the lives of successful men are very important in the study of thrift.

Banking Procedure and Business Forms. Too much time cannot be devoted to the study of this phase of business. The laboratory material usually accompanying standard texts offers excellent practice. Secure forms from local houses. Organize a school bank and appoint tellers. Drill on preparation and purpose of forms until students are capable of handling their accounts intelligently. (Only a small per cent of the public knows that the deposit ticket should be made out by the depositor.)

Penmanship. A portion of every daily class period should be devoted to practice in penmanship. A good business handwriting is essential in all clerical positions.

Commercial Calculations. Constant drill should be devoted to the development of a thorough working knowledge of business mathematics.

The Personal Budget. Teach the value of a budget. Propose suggested budgets. Prepare suggested budgets.

Mail Services. Kinds of services, precautions in sending mail, how to transmit money and valuables.

The Business Letter. The purpose and preparation of the business letter. This work may be correlated with penmanship in class work.

Kinds of Business Enterprises. The organization and service offered by each kind.

Seeking Employment. When to seek employment, where to seek employment, and how to seek employment. Characteristics required of employee.

Junior Positions. Make a study of each, the qualifications necessary for each. Suggested list for study—the messenger, the file clerk, the receiving clerk, order clerk, shipping clerk, messenger service, cashier, office boy, sales service, etc.

Commercial Arithmetic

The objectives of the course in Commercial Arithmetic should be to give the student a thorough knowledge and specific skill in commercial calculations as used in the average business today.

Accuracy and facility are of such vital importance in commercial calculation that constant drill on the four fundamentals, addition, subtraction, multiplication, and division, should be continued during the entire year's work.

The minimum requirements for the course should include a thorough knowledge of the four fundamentals, and interest, percentage, present worth, bank discount, commission, taxes, preparation of business forms, banking procedure, payrolls, insurance, profit, postage, freight and express charges, and graphs.

Neatness in all work should be stressed and required.

This course should be given in the second year of high school.

Commercial Geography

The objective of Commercial Geography should be to give the student an understanding of how man, through knowledge, has taken advantage of the resources of nature to benefit himself and his fellowmen. The student learns to understand why the climate and the soil of different countries affect particular raw products, which in turn give rise to various industries of the world. A final objective is to give appreciation of the natural resources and industries of the United States and foreign countries.

The content of the course should include study of the United States: Its physical features; plant, animal, and mineral products; water resources; concentration of industries; transportation and commerce; and government. Foreign commerce should be studied as it relates to the following countries: Canada, Europe, Asia, Australia and New Zealand, Africa, Latin America.

A note book may be kept containing parallel reading, pictures of cities and industries, maps, and compositions based on trips taken to industries in the city may be written.

Typewriting

Typewriting should be offered in the third and fourth years of high school as a corequisite with shorthand. It is also obvious that if typewriting is offered in the first two years of high school, much of the skill acquired will be lost through lack of machine practice in the last two years.

Class Period Schedule. One class period a day, five days a week, should constitute the schedule of all students. Standard scientific laboratory tests have proved that students having double practice periods per day show little improvement in results over ratings of pupils having single practice periods.

Credits. Typewriting requires no home study or outside preparation, hence its credit allowance will be less than that allowed regular academic subjects. The credit ratings should be as follows:

One semester, five periods a week, one-fourth credit.
Two semesters, five periods a week, one-half credit.
Four semesters, five periods a week, one credit.

The Beginning Students. Adopt the slogan, "Get the Right Start." Habits which are formed during the first week in typewriting classes may make or spoil expert operators. The first month's work is more important than all others to the young typist. The instructor's emphasis should be placed on the technique, and the element of worry on the part of the student reduced to a minimum. As soon as the student feels at

home with his machine, the perfect copy will follow as a natural result of supervised training. Make the practice intensive. All class work should be done with perfect concentration from the beginning. The perfecting of the get-away stroke when operating the keys should be the first milestone in the experience of the student, and accuracy should be the second goal. It has been said "as the teacher's standards are, so will the student's ability be."

Individual rating sheets may be used to chart the errors of each student and corrective drills provided to correct discovered weaknesses. Excellent practice material suitable for tests may be secured from the various typewriting companies for the asking. All speed tests in typewriting should be graded according to International Typewriting Rules and Regulations.

Speed and Accuracy Requirements. First Semester: A minimum rate of fifteen words per minute for five minutes on new material with a maximum limit of five errors on standard test material.

Second Semester: A minimum rate of 25 words per minute for fifteen minutes with a maximum of 10 errors on standard test material.

Third Semester: A minimum rate of 35 net words per minute for fifteen minutes with a maximum of 10 errors on standard test material.

Fourth Semester: A minimum net rate of 40 net words per minute for fifteen minutes with a maximum of 10 errors on standard test material.

Material Requirement. The first year material requirement should include a study and preparation of the more common business forms, the setting up of the different letter styles, centering exercises, tabulating, addressing envelopes, and straight copy practice.

The material requirement for the second year should be of a more advanced nature than the first year, but should include constant review of the fundamental principles of typewriting. A large part of the time should be devoted to the transcription of shorthand dictation notes. Advanced projects in set-up work should be included. Practice in the art of centering and designing should be given until the student has a proper sense of the appearance of a finished copy.

No teacher can afford to require less than the perfect copy as a standard of all transcription work.

The Shorthand Courses

AIM

The aim of the Shorthand courses should be to give to the students a thorough understanding and mastery of the principles and technique of writing shorthand; to increase the students' vocabulary and their command of the mechanical aspects of English; to make the writing of shorthand a tool to the individual.

Students weak in the use and construction of correct English should not elect to persue the course in Shorthand.

Shorthand should be offered for a term of two years, and should be scheduled in the last two years of high school with one class period a day, five days a week.

(The comments here have been largely based on the Gregg Shorthand method, as this system is used almost unanimously in the high schools of this State.)

THE FIRST YEAR COURSE

The immediate objective of studying shorthand is the ability to read and write shorthand. If the foundation for this objective is not attained during the first semester, it will not be attained at all. Shorthand is the highest form of art in writing. Therefore the minute variations in the characters used in representing the vowels and consonants in the alphabet must be made an art. Getting the proper slant and size of characters is exceedingly important for the beginning student. Halting, jerky, movements and poorly constructed forms are fatal to speed development later. This condition can almost always be traced to unfamiliarity on the part of the student with the form. Repetition practice is an absolute necessity in the learning process of shorthand, but may count for little if aimlessly performed and without proper supervision. The efficient teacher will see to it that the student gets the "right start."

Requirements for the First Year Shorthand Course:

Vowels—the A-group, E-group, O-group, OO-group, the diphthongs, the consecutively joined vowels, omitted vowels.

Consonants—the forward consonants, the downward consonants, the blended consonants, omitted consonants, the Brief Forms*, phrases, abbreviated words, and intersecting principle.

Word Prefixes and Suffixes—joined prefixes, disjoined prefixes, joined suffixes, disjoined suffixes (analocial word-beginnings and word-endings).

Geographical list, personal names, numerals, measurements, and initials.

Vocabulary Building. The basic content of the vocabulary should be so arranged that a writing vocabulary can be built up as rapidly as possible for the student. Dictation work for the first year students should be given with the aim of broadening the student's shorthand vocabulary rather than developing a high speed rate of writing during the first year. This should include words, phrases, sentences, and finally paragraphs and letters and short articles. The ability to write at the rate of fifty to sixty words per minute should be considered as a minimum requirement in dictation for the first year student.

THE SECOND YEAR SHORTHAND COURSE

Aim of the Second Year Course: To help students acquire speed and accuracy in handling general and technical dictation; ability to follow the line of reasoning of dictator; ability to read back shorthand notes fluently; ability to intelligently edit and transcribe dictation at required rate of speed; and a final and comprehensive training in office duties and business problems associated with a secretarial position.

*This group of words should be constantly drilled on in order to build up quick recall and rapid performance.

Requirements for Second Year Course:

1. A review of the theory and principles of the first year.
2. A study of how to practice for speed.
3. Repetition practice: requirement of 1,500 to 3,000 words daily.
4. Transcription: Editing dictation—mechanics of transcription; following line of reasoning of dictator; punctuation, hyphenating, spelling, and composition.
5. Style set-up: Nature of the material, the finished copy, criticism.
6. Legal and Business Forms: Content, use in conduct of business, and preparation.
7. Letters of application—preparation.

Speed Requirement in Dictation: 100 words per minute on business letters and straight copy.

The Repetition Practice: The repetition practice required of students outside of class is an integral part of the course and should be given close attention and criticism on the part of the teacher. Poor writing habits should be corrected as discovered. The amount of practice may vary, but a minimum of ten or more pages per day should be required of each student. The mechanics of handling the tablet is important as well as the posture assumed.

Office Training Course

This course is given in the senior year concurrently with advanced Shorthand.

Objective of Course: To bridge the gulf between the school room and the office; to develop on the part of the student individual initiative; by offering opportunity for development of initiative; to obtain the ability to use the various office appliances; and a desire on the part of the student to study his vocation as a means to further growth.

SUGGESTED OUTLINE FOR LABORATORY WORK

1. The Business Office: Organization of office; equipment—care; the secretary's work.
2. Outgoing Mail: Preparation, inclosures, and postal information.
3. Incoming Mail: Content, attention of manager, and general (secretary's ability to handle).
4. Instructions: Oral, written, interpretation, dispatch, record of.
5. Technique of Telephoning: Answering calls, the classified directory, long distance calls, taking calls for others.
6. Filing Systems: Alphabetical, numerical, subject; classification of material, file building, and transferring; quick location of data, laboratory work.
7. Office Appliances: As time saver; use and operative parts, care of. General equipment—typewriter, adding machine, mimeograph, and numbering machine.
8. Business Ethics: Business. Personal.

9. Commercial Calculations: Interest, profit and loss, discounting notes, checking accounts, proving balances, and billing.
10. Interviewing Business Callers: Personality, tact, and information on subjects.
11. How to Secure a Position: Qualifications, selling your service.

Commercial Law

The course in Business Law should not be offered until the last year in high school. At least one semester should be devoted to this subject.

Aim of Commercial Law Course: To give to the student a knowledge of laws governing business transactions that will enable him to make intelligent judgments in the conduct of business and his relation with his fellow man, so as to avoid transgression of those laws:

Requirement of Content: The content of any course in Commercial Law should include a study and interpretation of the following:

> The purpose of Commercial Law, contracts, competency of parties, consideration, legality of subject matter, mistake, misrepresentation, fraud, statute of frauds, interpretation of contracts, discharge of contracts, prevention of violation of contracts, rules relating to time and damages, sales of goods, negotiable instruments, definition of different forms of negotiable paper, requisites of negotiability, acceptance, endorsements, notice of dishonor, bona fide holder, checks, agency (duties and liabilities arising out of relation), termination of the agency, partnership, classes of partners, authority of partners, liability of partners to third parties, dissolution, corporations, powers and liabilities of corporations, rights and liabilities of stockholders, surety and guarantyship, bailments, innkeepers, common carriers, real property, landlord and tenant, title, mortgages, fixtures, fire insurance, life insurance, wills.

Business English

Business English should be made a definite part of the Junior Busi- Training and Penmanship class work. It should be correlated with typewriting and shorthand class work. Excellent drill work can be given in the form of typewritten assignments. Projects in Office Training Course can be built around weaknesses in English. With the four-year course in regular high school English and the constant drill on weaknesses correlated with commercial subjects, the student should be sufficiently aware of the common errors found in Business English.

Bookkeeping

Bookkeeping should be scheduled in the last two years of high school work. The objectives of the course should be to give to the student a comprehensive knowledge of bookkeeping principles and practice, and an interpretation of business procedure. It should enable the student to appreciate fully the significance of the phenomena of business. The class work should be made to furnish a practical field for all the reasoning qualities of the student and abundant chance for drill in bookkeeping procedure and the habit of accuracy.

THE BOOKKEEPING LABORATORY ROOM

The class room used as the laboratory of the bookkeeping class should be equipped for that purpose, and made to take on the atmosphere of the business office. It is obvious that the bookkeeping student will be constantly handling a volume of incoming and out-going business forms in connection with the laboratory budget work. Standard class room bookkeeping desks should be provided in order that the process of bookkeeping may be possible as well as habits of accuracy and neatness required.

The bookkeeping class work should be vitalized. Regardless of which approach the teacher may use the student should be given a clear interpretation of bookkeeping. The course should include a thorough study of the following as a minimum requirement:

First Year Bookkeeping Requirements—Single Proprietorship:

1. Why study bookkeeping, property, ownership?
2. Books of original entry, the ledger, posting, the account, special journals, the cash book.
3. Fiscal periods, financial statements, the working sheet, and closing entries.
4. Business forms, expense, discounts, and income.
5. Laboratory practice required on each topic, and several short practice sets to be worked off affording complete review of the theory and bookkeeping process as it relates to Single Proprietorship.

Second Year Bookkeeping Requirements—Partnership and Corporations:

First Semester:

1. The advantage of the partnership, the partnership agreement, opening the partnership.
2. The buying and selling of merchandise, business forms—the commercial draft and trade acceptance, freight bill, and discounting notes.
3. Trading accounts, deferred charges, petty cash, accruals, and consignments.
4. Financial statements of the partnership, and the working sheet.

The Second Semester requirements:

The second requirements should include a thorough study of the corporation. Some schools may care to include cost account. If so, partnership section should be moved back to the last semester in the Junior year.

1. The purpose of the corporation.
2. Organization of the corporation—the charter.
3. Stock, common, preferred, value of stocks, sale of stock, good-will.
4. Opening entry for a corporation, the executive meeting, dividends, surplus, corporation accounts, land and buildings, manufacturing accounts, and departmental records.
5. Financial reports of a corporation; the income tax.

Schedule of Commercial Course

SECRETARIAL COURSE

Required Subjects	*Periods Per Week*	*Unit Credit*	*Elective Subjects (Elect one)*	*Periods Per Week*	*Unit Credit*
FIRST YEAR:					
English I	5	1	History I—Civics	5	1
Math. I (Arith., 1st S.) (Alg., 2nd S.)	5	1	Commercial Art	5	1
General Science	7	1			
SECOND YEAR:					
English II	5	1	Math. II—Alg.	5	1
Junior Bus. Training and Penmanship	5	1	Science II—Biology	7	1
Hist. II, Mod. Eur.	5	1			
THIRD YEAR:					
English III	5	1	Latin I	5	1
Shorthand I	5	1	French I	5	1
Typewriting I	5	.5	Bookkeeping I	5	1
Commercial Geog.	5	.5	Math. III—Geom.	5	1
Industrial Hist.	5	.5			
FOURTH YEAR:					
English IV	5	1	Bookkeeping II	5	1
Shorthand II	5	1	French II	5	1
Typewriting II	5	.5	Elem. Economics	5	1
Com. Law, 1st Sem., Office Tr., 2nd Sem.	5	1	Salesmanship	5	1
History IV, U. States	5	1			

BOOKKEEPING COURSE

(First and second years same as Secretarial Course.)

THIRD YEAR:					
English III	5	1	French I	5	1
Bookkeeping I	5	1	Latin I	5	1
Typewriting I	5	.5	Math. III	5	1
Com. Geog.	5	.5	Shorthand I	5	1
Industrial Hist.	5	.5			
FOURTH YEAR:					
English IV	5	1	French II	5	1
Bookkeeping II	5	1	Latin II	5	1
Hist. IV, U. States	5	1	Shorthand II	5	1
Com. Law, 1st Sem.,			Elem. Economics	5	1
Bus. Admin. 2nd Sem.	5	1	Salesmanship	5	1

NOTE: Some schools have allowed double class periods in Bookkeeping; but if work is properly outlined and students provided with home work, the course can be adequately handled in the two-year period. (If student plans to go to college, he should elect his language in the first two years and his required Mathematics in the last two years.)

NOTE—Small high schools will not be able to offer all of the courses suggested above, but any school offering Commercial work should have two years of Shorthand, two years of Typewriting, and two years of Bookkeeping in the third and fourth years. It is customary for the regular Mathematics teacher to handle Commercial Arithmetic.

MUSIC

Objectives of High School Music

The following objectives are those proposed by the National Research Council of Music Education, of the Music Supervisor's National Conference.

"I. Ultimate Aims:

To strengthen the individual by providing him with a wholesome emotional outlet; to contribute to the development of the individual through the growth of his personal and social nature; to enhance life during periods of both work and leisure by providing that elevation of spirit which comes from a contact with the beautiful.

"II. Immediate Objectives:

A. To develop a love for and appreciation of good music—
   1. Through beautiful singing of appropriate song material.
   2. Through instrumental performance of those qualified.
   3. Through aesthetic enjoyment of listening to much beautiful music.
   4. Through the correlation of music with literature and history.
   5. Through the study of musical form to increase the intellectual understanding of music.
   6. Through the preparation of material for special occasions: assembly periods, concerts, etc.
   7. Through special projects such as ensemble, chamber music, etc.

B. To develop technical power—
   1. Through rhythmic training—meter sensing, physical response, time beating, Eurhythmics, etc.
   2. Through sight-singing, foundation drill, solfeggio, dictation, etc.
   3. Through ear-training.
   4. Through voice-training.
   5. Through instrumental training.
   6. Through combination of music and dramatic action—opera, operetta, etc.
   7. Through the encouragement of the creative faculty—musical composition.

C. To develop the spirit of coöperative service, thereby reënforcing spiritual values—
   1. Through providing that unity of spirit which may come to groups of people engaged in the performance of beautiful music.
   2. Through the use of group musical activities that develop a capacity for living the group life.
   3. Through altruistic service projects—caroling, visits to hospitals, etc.

(N. B.—The acquirement of technique should be motivated and directed by musical feeling and on the other hand genuine appreciation is dependent upon the acquirement of technical knowledge and power.)"

Introduction

The teacher of music in the high school has an almost unlimited field of the richest of possibilities before him. His students are full of vitality, and vibrant with feelings they long to express but know not how, while his subject matter is the medium of artistic and emotional expression that is most easily available to every young person, and is the art form in which the largest number of untrained folks can participate. This thought must largely determine the objectives and methods of high school music.

Every musical experience of the high school student, whether in participation or in listening, should furnish suitable nourishment and rightly-directed stimulation of his fundamental emotional nature. This demands a very careful selection of all musical material used in the high school, as well as a skillful presentation of that material.

The basic value of the education of our youth is perhaps more keenly tested by its usefulness to him in avocational channels than in any other way. High school music should have for one of its most important objectives the preparation of the students for a worthy use of their leisure time after they have finished their school days, and it should also provide a healthy and invigorating outlet for energy and feelings during the leisure time of the student while he is yet in school. Here the extra-curricular activities reveal their great value, especially if the student is directed into a further use of his musical abilities in similar ways after graduation.

The musically gifted student is frequently eager to delve into the theoretical and historical side of music study, to try his metal and discover if perchance this is the subject he wants to take up for a vocation. The well-equipped high school should make this one of its purposes in music—to offer the student sufficient prevocational study of music to enable him to determine whether music is the best vocation for him to follow.

In the suggestions to the music teacher and in the descriptions of courses recommended that follow, these purposes and ideals have been kept in mind as of paramount importance.

Suggestions to the Music Teacher

No music should be used that is not of high standard—that would not compare well with the type of literature used in the courses in English Literature.

Every high school should have one period of assembly singing each week, not a time of instruction, but a time of singing together for the sheer joy of self-expression.

Whenever possible the Glee Club, Chorus, Orchestra, and Band rehearsals should be held during the regular school day. Sometimes one period each day is taken for extra-curricular activities of various sorts, when each student elects the type of activity he wishes to join.

For any course in theory, harmony, or history of music each student should be required to make a comprehensive and interesting note-book, illustrated if possible. Frequently posters can very profitably be made by the class as a whole.

All teaching in the courses in theory, harmony, history and appreciation should be by the project method as much as possible, or the assignment of worth while problems when a large project does not seem feasible.

The teacher of music in the high school should make every effort to place the study of music in the high school on par with the study of subjects in other departments.

For the use of students taking the credit courses in music and to stimulate musical interest in the entire student body, a strong reference library in music should be built up, by adding a few new books each year.

If there are not enough students who play instruments to form a band or orchestra, the teacher should make an effort to organize classes of students who wish to learn to play various instruments, preferably organizing students in the upper grades so that they will be able to play fairly well by the time they enter the high school.

In all singing organizations in the high school each boy's voice should be tested often enough to make sure that he is singing the part that is best for the development of his voice. Once or twice each year is sufficient for the testing of the girls' voices.

A boys' glee club is worth while for as small a number as twelve, and a girls' glee club for sixteen. Unison singing is valuable, but part-singing should be undertaken as soon as possible: two-part songs for the girls, and three-part or four-part songs for the boys.

If tenor voices are scarce or lacking, the boys' glee club may well use songs for three parts: tenor, baritone and bass. Unchanged voices may be used for the tenor part if necessary. For the mixed chorus songs written for soprano, alto and bass may be used.

Healthy competition stimulates interest and effort, hence, competitive singing and playing in County, District, and State High School Music Contests should be encouraged in every high school.

Credits for Music Courses

There is much confusion regarding credits for courses in music among both teachers and school administrators. Some contend that all music courses should be elective, while others believe that every student should be required to take some musical courses for their general cultural value, for the development and inspiration of worthy emotions which music engenders, and for the great value of music in preparing the students to use their leisure time in a worth while manner.

At present, it seems necessary for each school to work out its own plan regarding music courses and credits. Any course in music that receives credit should be of equal worth to any other credit course given in the school, requiring as much outside work, and receiving as careful preparation on the part of the teacher. The recommendations of the high school committee of the Music Supervisors' National Conference, accepted by the conference and used in the Report of the Commission on the Reorganization of Secondary Education appointed by the N. E. A., Bulletin, 1917, No. 49, are as follows:

I. "All study of music, or exercise in music, undertaken by any high school as part of the scholastic routine shall be credited by that school.

II. "The amount of credit so granted shall be equal in every case, hour for hour, to that granted by the same school for any other subject, with the following qualifications:

"All subjects, musical or otherwise, are understood in the report to be on a basis of double or single credit, accordingly as they do or do not necessitate a period of study in preparation for each period of recitation. Thus, to be applied to music, chorus practice, which requires no preparation, would receive equal credit with drawing, which requires none. On the other hand, each recitation hour in harmony should receive double the credit of each chorus recitation hour, inasmuch as harmony requires preparation study that can be certified; and again, harmony should be credited hour for hour of scheduled recitation equally with mathematics or any subject similarly requiring outside study."

It is suggested that chorus be required for two years, and receive credit on the above basis—the same as laboratory work. Any of the elective courses recommended: Sight-singing and Ear-training, Harmony, History and Appreciation, or Harmony and History should be made a full credit course.

Some schools consider it best to offer credit for Glee Club, Orchestra and Band, but if this is done it should again, be on the basis of laboratory work. It is probably best that these courses be classed with the extra-curricular activities and receive no credit. It should, however, be considered a signal honor to belong to one of these organizations and to appear on the programs given during the year. This thought can be greatly strengthened in the minds of the students if a monogram is awarded each year for faithful and efficient work in the organization, just as a monogram is awarded in various athletic activities.

All credits for music should be based on 120 clock hours as a unit of work. A course that is given on laboratory basis should be given only one-half as much credit as a regular course for which preparation is required.

For example: If glee club meets twice a week, 45 minutes each, only one-fifth of a unit of credit can be given for a year's work, and it will take at least four years of such work to entitle a student to as much as one unit of credit, provided credit is allowed for glee club.

A student who has musical ability and is specializing in music should not be allowed to count more than four units of music in meeting the sixteen units required for graduation. As a rule, the sixteen units should include not more than two units of music.

Courses Recommended

A. CREDIT COURSES.

1. Sight-singing and Ear-training. A course of a full year's duration, reciting five periods each week, and requiring outside preparation each day. This course should include the fundamentals of theory, singing music of medium difficulty at sight by syllables, and learning to recognize and write what the student hears, including both rhythmic and melodic ear-training. Elective for Sophomores, Juniors and Seniors. Credit, one unit for the year. Suggested texts: Gehrkens, *Music Notation and Terminology;* Heacox, *Ear-training; Progressive Series,* Books II, III, and IV; or *Hollis Dann Series,* Books III, V, VI, and *Junior Music.*

2. Harmony. Elective for Juniors and Seniors who have completed the course in sight-singing and ear-training. This is a prevocational course of a full year's duration, reciting five periods each week, and requiring outside preparation for each recitation. This course should include harmony presented through the ear as well as the eye, the writing and harmonization of melodies, using the primary triads, the most commonly used secondary triads and the dominant seventh chord. Harmonic ear-training and keyboard harmony should be stressed. Credit, one unit for the year. Suggested texts: Heacox, *Harmony for the Ear, Eye and Keyboard;* Dickey and French, *Melody Writing and Ear-training;* McConathy and others, *An Approach to Harmony.*

3. Appreciation and History of Music—A Study of Musical Literature. Elective for Juniors and Seniors. A course of a full year's duration, reciting five periods each week, and requiring outside preparation for each recitation. *"The aims of this course are (1) to provide the foundation for a broader culture; (2) to develop a discriminative power which will enable one to choose between the good and the bad; (3) to help the individual realize the importance of good taste in musical art; and (4) to make the future citizen appreciate the values of art in civic life. The course should include a study of a large number of typical examples of musical literature together with those fundamentals of form and design essential for the enjoyment of music, also such historical material as may be necessary to give perspective to the musical understanding. Assigned reading, prepared topics, analysis of various forms, musical participation (singing and playing) and a large amount of discriminative listening should be included in the course." Credit, one unit for the year. Suggested texts: Faulkner, *What We Hear in Music;* Erb, *Appreciation for the Student.*

4. Harmony and History of Music. Elective for Juniors and Seniors who are interested in music study. A course of a full year's duration, reciting five periods each week, and requiring preparation for each recitation. This course should not be given if there is a full year's course in harmony given, but the smaller high school can frequently support such a course as this when it is impossible to have the separate courses in harmony and history. It is suggested that three recitations each week be devoted to the study of the fundamentals of music notation and to harmony, and the remaining two days be devoted to the study of the history of music, including as much experience in intelligent listening to representative compositions of the period or the composer being studied as it is possible to provide for the students. Each student should be required to keep a note-book in connection with the study of music history. Credit, one unit for the year. Suggested texts: Gehrkens, *Music Notation and Terminology;* Heacox, *Harmony for the Ear, Eye and Keyboard;* McConathy and others, *An Approach to Harmony;* Faulkner, *What We Hear in Music;* Erb, *Music Appreciation for the Student.*

*From the recommendations of the National Research Council of Music Education.

B. CREDIT OR NON-CREDIT COURSES.

1. Chorus. If the high school is of considerable size it is recommended that there be two choruses, as follows:

a. Chorus Class—Required of all Freshmen and Sophomores, singing good though relatively simple material, making an effort to create a permanent interest in choral music. True intonation, pleasing tone quality, a proper balance of parts, and artistic singing should be emphasized. Three meetings each week, one-fourth unit of credit for the year; meeting five times each week, one-half unit of credit for the year. If meeting but once or twice each week no credit should be allowed.

b. Advanced Chorus—Elective for Juniors and Seniors, paying more attention to voice training and to the development of individual skill in singing. Opportunity should be provided for the students to become acquainted with a wide range of fine choral music. Credit, five periods per week, one-half unit for the year; three periods per week, one-fourth unit for the year; one or two meetings per week, no credit.

c. In a small school it is recommended that there be but one chorus—the Elective Chorus, open to any student with an acceptable singing voice, meeting at least once each week and twice if possible, singing music of suitable difficulty, but always of good quality, and studying the fundamentals of music theory and sight-singing if the students need this work. Credit, five periods per week, one-half unit for the year; three periods per week, one-fourth unit for the year; one or two meetings per week, no credit.

2. Orchestra and Band. Since playing an instrument has a very strong appeal for many students who do not care especially for singing, it is strongly urged that instrumental music be introduced and promoted in the schools whenever possible. The Orchestra or Band should meet once each week, or twice if it can be arranged. It is still better if one period each day can be set aside for the rehearsal, but in a small school this is rarely possible. The director is urged to make a beginning with whatever instruments are available, even though it is a small group. In the meantime classes in the various instruments should be organized and an orchestra or a band formed as soon as the students can play well enough. No credit should be given for band or orchestra unless their work is of a high character, and then it must be on the laboratory basis. Three rehearsals per week, one-fourth unit for the year; five rehearsals per week, one-half unit for the year.

Credit for applied music (private instruction in piano, violin, etc.) is not here under consideration.

C. NON-CREDIT COURSES. (Extra-Curricular Activities.)

1. Glee Clubs. Since the Glee Club affords the student a different type of experience from that of the Chorus, it is recommended that whenever possible the music director organize both a Girls' and a Boys' Glee Club. While the membership in the Glee Club is always elective, it must also be selective, for the director must have the privilege of selecting the group of voices that gives promise of forming a club that will do thoroughly artistic and beautiful work. Each Glee Club should meet at least once each week and more often if possible. No credit.

In a small high school, if it is not possible to have both Glee Clubs and Chorus, it is often well to have the Glee Clubs, then combine them when a mixed chorus is needed. In this case the director should admit every voice possible to the Glee Clubs, so that no student really wanting singing experience will be deprived of it.

2. Ensemble Groups—a. Vocal. Girls' Quartette, Boys' Quartette, and Mixed Quartette—each furnishes valuable experience as well as pleasure to the students who have suitable voices and sufficient skill to sing in one of these groups. No credit.

b. Instrumental. String trios, quartettes; wood-wind ensembles, brass quartettes, and such groups as piano, violin and flute; or piano, violin and cello; or piano, violin and cornet are included within the scope of this work. It is very beneficial to the students who play these instruments to study together music written for such groups. Artistic work, a skillful blending of the ensemble and a high type of individual performance should be stressed by the director. No credit.

Suggested Material

BOOKS AND MAGAZINES

I. TEXT-BOOKS

a. Sight-singing and Ear-training

Music Notation and Terminology—Gehrkens (Barnes).
Ear-training—Wedge (Schirmer).
Melody Writing and Ear-training—Dickey and French (Ditson).
Ear-training—Heacox (Presser).
Students Manual of Sight-singing—Whelpton (Presser).
Progressive Series—Books II, III, and IV—McConathy (Silver-Burdett).
Hollis Dann Series—Books III, V, VI, and Junior Music—Dann (American Book Co.).

b. Harmony

Harmony for Ear, Eye and Keyboard—Heacox (Ditson).
An Approach to Harmony—McConathy and others (Silver-Burdett).
Exercises in Melody Writing—Goetschius (Schirmer).
Aural Harmony—Robinson (Schirmer).
First Year Musical Theory—Tapper (A. P. Schmidt).

c. History of Music

Music History—Dickinson (Scribner).
History of Music—Stanford and Forsythe (Macmillan).
Standard History of Music—Cooke (Presser).
Outlines of Music History—Hamilton (Ditson).

d. Music Appreciation

What We Hear in Music—Faulkner (Victor Co.).
Appreciation for the Student—Erb (Schirmer).
Musical Appreciation—Hamilton (Ditson).

II. Reference Books

a. Dictionaries and Encyclopedias

Grove's Dictionary of Music and Musicians (Macmillan).
Music Dictionary—Elson (Ditson).
Fundamentals of Musical Art, 20 vols. (Caxton Institute).

b. General Reference

Fundamentals of Music—Gehrkens (Ditson).
From Song to Symphony—Mason (Ditson).
Musical Instruments—Kelley (Ditson).
Epochs in Musical Progress—Hamilton (Ditson).
Masters of the Symphony—Goetschius (Ditson).
Appreciation of Music—Mason (H. W. Gray Co.).
Music in Art and Language—Spalding (A. P. Schmidt Co.).
Listener's Guide to Music—Scholes (H. W. Gray Co.).
Listener's History of Music—Scholes (H. W. Gray Co.).
Evolution of the Art of Music—Parry (Appleton).
Common Sense of Music—Speath (Boni and Liveright).
Beethoven and Forerunners—Mason (Macmillan).
Orchestral Instruments and What They Do—Mason (H. W. Gray Co.).
Scope of Music—Buck (Oxford University Press).
The Complete Opera Book—Kobbe (G. P. Putnam's Sons).
Behind the Scenes at the Opera—Watkins (F. A. Stokes Co.).
The Story of Our National Ballads—Browne (T. Y. Crowell Co.).
The Appreciation of Music—Welch (Harper and Bros.).
How Music Grew—Bauer and Peyser (G. P. Putnam's Sons).
The Standard Concert Guide—Upton (A. C. McClurg and Co.).
The Standard Concert Repertory—Upton (A. C. McClurg and Co.).

III. Musical Magazines

a. For the Teacher

School Music (Keokuk, Iowa).
The Supervisors Journal (Ithaca, N. Y.).
The Music Bulletin (American Book Co., N. Y.).
The Supervisors Service Bulletin (Educational Music Bureau, Chicago, Illinois).

b. For the Student

Musical America (New York).
Musical Digest (New York).
The Etude (Philadelphia).
The Musician (Boston).
The Musical Courier (New York).
The Musical Observer (New York).
Musical Quarterly (New York).
Music and Youth (New York).

MUSIC

I. Choral Music

a. Mixed Chorus (four-part)

1. Books and Collections—

Laurel Songs for Juniors—Armitage (C. C. Birchard).
School Song Book—McConathy (C. C. Birchard).
The Halycon Song Book (Silver-Burdett & Co.).
Glee and Chorus Book—NeCollins (American Book Co.).
Standard Songs (C. C. Birchard Co.).
Twice 55 Community Songs—Brown Book and Green Book (Birchard).
Art Songs for High School (difficult)—Earhart (American Book Co.).

2. Octavo Music—

'Tis Morning—Fearis (Fearis).
Farewell to the Forest—Wilson (Presser).
Viking Song—Coleridge Taylor (Ditson).
Awake, Awake—Cadman (Ditson).
O Captain, My Captain—Kelley (Birchard).
Jesu, Friend of Sinners—Grieg (Novello).
Old Ironsides—Scott (A. P. Schmidt).
The Twilight Shadows Fall—Wood (H. W. Gray Co.).
The Knight of Bethlehem—Bornschein (J. Fischer).

Mixed Chorus (three-part)

1. Books and Collections—

Laurel S. A. B. Book—Armitage (Birchard).
Fifth Book of Songs—Foresman (American Book Co.).

2. Octavo Music—

In April—Aiken (Willis).
A Night in June—Targett (Ditson).
Drowsily Come to Sleep—Proctor (Flammer).
See the Harvest Moon is Shining—Rhys-Herbert (J. Fischer).
May Day Carol—Deems Taylor (J. Fischer).
Come to the Fair—Salter (Enoch and Sons).

b. Girls' Glee Club

1. Books and Collections—

Rose Book of Twice 55 Series (C. C. Birchard).
Ten Choruses for Women's Voices—Chapin (Boston Music Co.).
Assembly Songs, Nos. I and II—Dann (Novello).
Laurel Songs for Girls—Armitage (Birchard).
Part Songs for Girls' Voices—Shirley (American Book Co.).

2. Octavo Music (two-part)—

Merry June—Vincent (Birchard).
River, River—Chilean Folk Song (J. Fischer).
In a Fairy Boat—Harris (A. P. Schmidt).
I Know a Grove—Stafford (A. P. Schmidt).
When Life is Brightest—Pinsuti (Birchard).
Spring Dialog—Grant-Schaffer (A. P. Schmidt).

3. Octavo Music (three-part)—
Night Song—Clokey (Birchard).
Hark! Hark the Lark—Schubert (Ditson).
Daybreak—Harris (A. P. Schmidt).
The Snow—Elgar (H. W. Gray).
Flower of Dreams—Clokey (Birchard).
The Call—Andrews (Schirmer).
4. Octavo Music (four-part)—
The Years at the Spring—Beach (A. P. Schmidt).
Over Hill and Dale—Beach (A. P. Schmidt).
My Lady Chloe—Clough-Leighter (Birchard).
Shepherd! Play a Little Air—Stickles (Flammer).
Evening Song—Gillette (J. Fischer).
The Night—Schubert (Schirmer).

c. Boys' Glee Club

1. Books and Collections—
Glenn Glee Club Book for Boys (Silver-Burdett Co.).
Twice 55—The Orange Book for Boys (Birchard).
Boys' Own Chorus Book—Baker (Boston Music Co.).
Glee and Chorus Book for Male Voices—Towner and Hesser (Silver-Burdett Co.).
Chorus Books for Boys—First and Second—Bergquist and Probst—for Junior High Boys (Schirmer).
2. Octavo Music (three-part)—
The Minstrel Boy—Irish Folk Song (Ditson).
Gypsy John—Clay (Gamble).
The Mountain Pine—Brooke (Gamble).
Hungaria's Treasure—Hungarian Air (Ditson).
Stars of the Summer Night—Moore (Fearis).
Sunset—Moore (Parks).
3. Octavo Music (four-part)—
A Song of the Road—Protheroe (Fitzsimmons).
Song of the Western Men—Protheroe (Fitzsimmons).
Dedication—Franz (H. W. Gray).
The Lamp in the West—Parker (J. Church).
The Old Road—Scott (Schirmer).
The Ship Builders—Calver (A. P. Schmidt).

II. Instrumental Music

a. Orchestra

McConathy-Stock—*The Symphony Series* (Silver-Burdett Co.).
Rebman-Clarke—*Beethoven Suite* (G. Schirmer, *Master Series for Young Orchestras*).
Willis Graded School Orchestra and Band Series (Willis).
Laurel School Orchestra Series (Birchard).
Philharmonic Series (Ditson).

The above series contain material of good quality, and of varying difficulty. The director will be able to find the grade of music suitable for any organization.

b. Band

1. For Beginning Bands—
   Ditson School and Community Band Series (Ditson).
   Universal Series (Willis).
   Willis Graded School Orchestra and Band Series (Willis).
2. For More Advanced Bands—
   The following publishers can supply materials of good quality and of varying difficulty to suit the needs of any band:
   Emil Ascher, 1155 Broadway, New York.
   J. W. Pepper and Son, 33rd and Walnut Streets, Philadelphia.
   Carl Fischer, Cooper Square, New York.
   Sam Fox Publishing Co., 160 West 45th Street, New York.

c. Ensembles

The following suggestions are offered for string ensembles:
Haydn—Trios for violin, cello and piano.
Beethoven—Trios for violin, cello and piano.
Haydn—Quartettes for two violins, viola and cello.
Beethoven—Quartettes for two violins, viola and cello.
String quartettes by Mozart, Tschaikowsky, and other well-known composers.

The same publishers recommended for band music can supply a variety of numbers for wood-wind ensemble groups and for brass quartettes.

NOTE—The above lists of materials are merely suggestive. Each publisher issues many desirable numbers, and each is willing to send material to the teacher for selection, the teacher sending back material not wanted within ten days. This is the most satisfactory way to select and order your music, for what is suited to one chorus or glee club or orchestra may be not at all suited to another. If the teacher wishes to get materials from many publishers from one source, the Educational Music Bureau, 434 South Wabash Avenue, Chicago, Ill., will supply whatever you wish, regardless of who the publisher may be.

ADDRESSES OF MUSIC PUBLISHERS

C. C. Birchard and Co., 221 Columbus Ave., Boston.
Theo. Presser, 1712 Chestnut Street, Philadelphia, Pa.
Oliver Ditson Co., 178 Tremont Street, Boston.
Willis Music Company, 137 West 4th Street, Cincinnati, Ohio.
American Book Co., 100 Washington Square, New York.
A. P. Schmidt Co., 120 Boylston Street, Boston.
G. Schirmer, 3 East 43rd Street, New York.
Harold Flammer, 57 West 46th Street, New York.
John Church Co., 318 West 46th Street, New York.
H. W. Gray Co., (also represent Novello), 159 East 48th St., N. Y.
Enoch and Sons, 113 West 57th Street, New York.
Sam Fox Publishing Co., 160 West 45th Street, New York.
Boston Music Co., 116 Boylston Street, Boston.
J. Fischer and Bro., 119 West 40th Street, New York.
Gamble Hinged Music Co., 67 East Van Buren Street, Chicago.
Carl Fischer, Cooper Square, New York.
Siver-Burdett and Co., 41 Union Square, New York.
J. S. Fearis and Bro., 2204 Ainslee Street, Chicago.
H. F. Fitzsimmons, 509 South Wabash Ave., Chicago.

FINE ARTS

Introduction

The nature and practice of art in the primary and grammar grades naturally determine the content of art courses for the high school. The courses in art for the high school should be a continuation of that training offered in the elementary schools. Facing the fact that the art training in most of the elementary schools of North Carolina is in its infancy, naturally a somewhat simplified course of study should be offered to the high school pupils. In order to take care of the high schools in school systems where art training throughout the elementary grades is of a more advanced type, additional supplementary problems are suggested.

All art instruction in the high school has a two-fold goal in view: to produce more intelligent consumers of art and to promote a greater interest in an appreciation for art in every-day life. The course of study as outlined attempts to suggest ways and means by which the foregoing objective may be realized. All study of art reduces itself, in short, to the consideration of three elements, namely, line, form and color. For example, an automobile is considered a work of art when its lines, form and color make a pleasing whole to the eye. The means of aiding the student to become "art-minded" is to teach him how to enjoy, recognize and use good line, good form and good color, whether it be in a painting, a piece of cloth, the design and color of a dress or a suit of clothes, the color of walls for a home, office or factory, an advertisement, a piece of furniture, an automobile, a set of silverware or any article of his every-day acquaintance. Any object of his environment is good or poor art according to the nature of the line, form and color involved. The content essentials around which the course of study is constructed are color, construction, design and representation. Any subject matter or problem involving one or more of the foregoing named elements and content essentials is assumed as a worthy piece of study in art.

It is suggested, since the art of the home and industry involves to a great extent the use of color and design that these two content essentials be emphasized in Art I, Art II and Art III. Definite training should be advanced in simple color theory which teaches the student a few of the common color combinations found in the art of nature and man—made art. Repetition of the use of color schemes through a variety of problems and projects does not tire the pupil of color and greatly adds to the purpose of making a deeper and lasting impression as to the scientific use of color and the necessity of proper combination of colors. Regardless of the specific application, it contributes something to the student's knowledge of color which may be used in his life outside of school. Design as such, without any particular reference to its application should be introduced first. The principles of balance, harmony and repetition should be emphasized and concretely exemplified. In coloring designs special emphasis should be given to values and intensity. After this preliminary practice design becomes known to the pupil as the process of breaking up a space interestingly. Follow up design work may be made with reference to some particular object or the object itself is the design problem.

At all times the teacher of art should take the following points into consideration:

1. The course of study is elastic and without a great amount of detail allowing the teacher an opportunity ot express her own initiative and individuality of method.
2. Develop *appreciation*, discriminating taste and intelligent art judgment of the many things of the student's environment.
3. Encourage freedom of expressing ideas. Call for imagination and invention.
4. Encourage individual responsibility to domestic, civic, social and industrial art needs.

Art I

A. COLOR THEORY AND APPLICATIONS.

1. Flat wash. Training in covering a considerable space with a flat tone.
2. Combination of the three sets of primaries (R-B), (R-Y) and (B-Y) to get respective secondaries (V-), (O) and (G).
3. Tint and shade of each of the primaries. This is a means of teaching the definition of tint and shade. Through this problem students easily learn there are many possibilities for varied color schemes when using only the primaries.
4. Study of one hue, complementary, triad and adjacent schemes. Locations of and reasons for. Study of intensity and value.
5. Aid in recognition of color. Collect examples of color as found in cloth, glass, yarn, stones, feathers, leaves, etc. Arrange in groups according to 3, 6 or 12 hues. Develop power of observation and recognition of color.
6. Study and discussion of color schemes in dress, interior decoration, etc. Use immediate surroundings. Make assignments of observations to be made at home, in shop windows, etc.
7. Study of color in art appreciation pictures.
8. Flower design. Application of a definite color scheme. Emphasize wise use of value, tint, shade and intensity. Make design large, filling up a 18x24-inch paper.
9. All over pattern design of butterfly. Use different color scheme than in foregoing problem. Design should be applicable to dress, curtain materials, etc. 18x24-inch paper.
10. Christmas tree designs with definite color schemes. Applicable to greeting cards.
11. Figure and costume design and application of color scheme. Study of the color of costumes of various countries.

NOTE—If supplementary problems are needed have students do designs of birds, buildings, etc., emphasizing color composition rather than the design itself.

B. COMPOSITION AND DESIGN.

1. Composition in lettering. Simple block letter alphabet suitable for posters and booklets. Single line alphabet. Definite problems in composing words using the alphabet. Design letters to given shape and color.

2. Illustrating Indian life. Consideration of composing various objects common to the life of the Indian.
3. Indian design. Study of characteristic shapes, colors and symbols. Create original design based on previous study. Application to rug or pottery design.
4. Simple introductory study of home art. Simple arrangement of furniture. Making of color schemes for various rooms.
5. Dress design. Study of appropriate dress. Design suit or dress and color.
6. Still life compositions in value. Match values with color.
7. Simple pose drawing to get action of figure, proportion, and general characteristics.
8. Poster work, lettering, composition and color.

Art II

A. COLOR THEORY AND APPLICATIONS.

1. Individual clipping collection. Include color, design, interiors, exteriors, examples of costume design, lettering, posters, types of foreign costumes and facial characteristics, value studies, silhouettes, in fact anything that might be used as a reference book is used for history.
2. Review color work of Art I. Apply to a problem that fills a need in the school, i. e., posters for various clubs, announcements for chapel programs, hall, library and classroom regulations, etc.
3. Review study of value. Study examples of value found in reproductions of paintings, in magazine clippings, etc. Apply to a design, floral, geometric or based on landscape.
4. Introduce split complementary and double split complementary color schemes. Combine use of tints and shades for more complicated color schemes. Apply to flower, plant, tree, bug and animal designs in all-over pattern. Design should be applicable to dress, curtain materials, etc.
5. Study of color in connection with home, school and community. Discuss color for interiors and exteriors of homes, schools and public buildings. Consider different rooms of the home, northern and southern exposures, pictures, curtains, rugs, furniture, etc. Refer to clipping collection, study store windows and displays of interiors.
6. Make drawing for side wall elevation. Plan color scheme for wall and furnishings.
7. Plan color scheme for exterior, using color in flowers, shrubs and trees in the plan.
8. Color in connection with costume design. Color schemes becoming to blond, brunette, and auburn hair. Suitability for occasion. Refer to clipping collection.
9. Plan color scheme for own type. Outfit for school, sport, street, evening wear.

B. COMPOSITION AND DESIGN.

1. The composition and design work are combined in a project which includes work of the English, Printing and Art departments.

Through class discussion, a topic is decided upon for a block print book. It is advisable to select a topic of civic interest. This interests not only the pupils, but people outside of the school and thus becomes desirable school publicity.

Make a list of all the possible phases of the topic to illustrate. Have two or three select each phase of the topic, look up material about it in English class. While the reference work is going on, take up block-printing in Art class.

a. Use of line and mass.
b. Simplicity and strength of design.
c. Balance of light and dark.
d. Use of background for printing, design cut out.
e. Cut out background, design printed.
f. Bevel all edges.
g. Keep all edges clear-cut.
h. Avoid hair lines.
i. Ways of expressing different textures, i.e., shiny surface, bark, water, hair, etc.
j. Use of high light and shadow.
k. Draw design, reverse, trace on block.
l. Make trial proofs.
m. Make final corrections for printing.
n. Use appropriate designs for backgrounds for initial letters.

After the compositions have been typed, hand-prints of blocks made, initial letters printed, assemble material into "dummy copy" to be turned over to print shop.

This can be followed up by designs for Christmas cards, school announcements, book-plates, etc. If pupils are interested, go into colored block-printing, using a separate block for each color.

Art III. Costume Design and Interior Decoration

COSTUME DESIGN

A. Color Theory.

1. Review color theory cited for Art I and Art II. Especially review one hue, complementary, triad, and adjacent color schemes. Review the terms, value, intensity, tint and shade. Use color in cloth to illustrate the foregoing in a concrete way. Ask students to bring as many examples of color to class as possible. The greater the variety of examples the better.
2. Devise new problems of the simple kind which will illustrate color theory studied.

B. Textile Design.

1. Collect several pieces of textiles in the way of dress goods, curtain materials, rugs, etc., which have good design and color. Have students to copy design on large 18x24-inch paper and match colors. This gives unusually good training in mixing new colors as well as acquainting the student with the many characteristics of textiles.
2. A follow-up problem could be the making of an original design for a piece of textile.

C. Figure Drawing.

1. Discussion of the figure by example. Have a student pose before class and point out the essential characteristics of a figure. Illustrate these points on the board. Collect many examples of figure drawings which illustrate costume, action, proportion, etc.
2. Pose drawing. Construct figure by use of ovals. Have model to shift to different poses of extreme action.
3. Pose drawing. Have students draw on 18x24-inch paper using entire length of paper. Instruct students to get only essential lines which characterize the figure. Leave out all details of dress, face, shoes, etc. Outline with dark value of paint.
4. Original figure drawing. Instruct students to create a type figure of a boy and girl. Clothe these figures with original dress designs in further work.
5. Collect examples of costumes of various countries. Study the essential characteristics of the style, color, design, etc. A problem could be the creation of a dress design based on the foregoing study.

NOTE—Further problems could be a continuation of what has preceded, i. e., designing of practical styles in relation to individuals, locations and occasions, tie dyeing, block-printing, stenciling and batik.

INTERIOR DECORATION

Through the study of home art, you should awaken in the student a desire to help beautify the home, the school room or anywhere else he might spend a part of his time. Home art is an every-day art, an art which can be closely connected up with the pupils' immediate living. Since Interior Decoration is a very broad field it is suggested that only a small unit be undertaken and completed. This unit should be of such nature to give the student the rudiments rather than the entire scope of the subject. The suggestive unit of work is developed as follows:

1. Illustrations should be collected by the student and teacher which give ample suggestions for color schemes, floor plans, types of houses, furniture and its arrangement in the room. Such illustrations affords the student a chance to see the tremendous possibility of the art factor in the decoration of the interior.
2. Discussion by the teacher of the outstanding points about art in the home illustrating each point as concretely as possible with illustrations and blackboard drawing.
3. Selection of a house and consideration of site, etc.
4. Selection of a particular room to be decorated and furnished. (Student's room may be used.)
5. Drawing of floor plan of this room as nearly to scale as possible. Do not spend too much time on this work because of its mechanical nature.
6. Cut floor plan furniture out of paper (to scale). Arrange according to artistic principles and paste to floor plan.
7. Elevate one side of the room. Draw in furniture in simple false perspective.

8. Study of color scheme for room in general. Take into consideration the room being decorated and furnished.
9. Work up trial color sketch then apply to finished wall elevation.

NOTE—If time permits further study could be carried out concerning rugs, period furniture, hanging of pictures, etc.

Art IV. Commercial Design

1. History of the alphabet, including items such as: use of pictures, ideographs, hieroglyphics, Phoenecian alphabet, Roman alphabet, illuminated manuscripts.
2. Built-up alphabet. Use of terms: serif, stem, hair line.
3. Design a monogram or book-plate using built-up lettering.
4. Free-hand alphabet—
   a. Horizontal stroke (use guide lines about two inches apart—practice until lines are uniform—hold brush rather loosely. Use arm movement, not fingers).
   b. Vertical strokes.
   c. Slanting strokes from left to right.
   d. Slanting strokes from right to left.
   e. Letters formed from 1, 2, 3, 4—A, E, F, H, I, K, L, M, N, T, V, W, X, Y, Z.
   f. Curves as in C.
   g. Curves as in D.
   h. Letters using curves—B, C, D, G, J, O, P, Q, R, S, U.
5. Make signs for the school as library, halls, study hall. Use free-hand lettering.
6. Value study—black, gray and white; tint normal and shade. Use in a design or border pattern. Keep a clipping collection showing the use of value in commercial advertising.
7. Color study—primary and binary colors; complementary color schemes. Use of color in showcards, posters and commercial advertising. Keep clipping collection to show the use of color in commercial advertising.
8. Explain the use of the term "lay-out" in connection with commercial advertising. Make five or six trial lay-outs. Use lettering and color in working up the best lay-out.
9. If time permits, introduce linoleum block-printing. Refer to Art II, B. Composition and Design.

Enough material has been included in each of the above courses to take care of those high schools giving double periods five days a week for two semesters. The following additional courses may be offered in schools which have the time:

Art. V. Art Appreciation and History of Art

Five periods for one semester. One-half point credit. This course with one semester of Music Appreciation gives one point credit toward graduation. Elective in Senior High School.

A study of painting, architecture, furniture, textiles, gardens, interiors, and pottery will be made in the following: Egyptian (including Coptic), Greek, Roman, Mohammedan, Oriental, English, and American Indian Art.

There will be lectures illustrated with lantern slides from the Metropolitan Museum and other galleries.

If there were a suitable text on Art History for high school students, it is advisable to use one.

Art VI. Freehand Drawing and Sketching

Five periods a week, one point credit. This course intended for those students who expect to major in art and who have need for and time to get first-hand information.

Elective in Senior High School.

Aims: To learn to appreciate the beauty in nature and in the human form; to train in expression, composition, and art judgment.

I. Landscape.

Outdoor sketching:

a. Quick sketch to develop pupil's power of rapid delineation.
b. Carefully drawn freehand sketch, showing all details of construction, form, and technique.

Decorative nature work in design.

Application—panels for screens, mural decoration, furniture, etc.

II. Figure Drawing.

a. Study given to the construction and action of the figures.
b. Use of the figure in composition.
c. Study of illustration, both book and magazine.

DRAMATIC ARTS

Introduction

Aim: If a course in dramatic arts is well-taught the children participating should gain in the following: poise, grace, diction, voice control and carrying power, flexibility of body and imagination and ability to do creative writing. These outward evidences are important but equally important is the ability a child will gain in the power of interpreting the emotions of great writers, his acquaintance with masterpieces through his endeavor to interpret them, and the joy he gets from losing himself in the production and helping to create the production.

If a course in dramatic arts is worth putting into a school curriculum it is worth doing through the best drama only. The plea is made in many communities that the residents will not rise to good drama and, therefore, it is useless to try to give it. That is an excuse rather than a reason. The thing that has killed good drama in most places is that the school play has been used to "raise" money for everything from football uniforms to playground equipment. It has been the grindstone that has ground the athletic axe, the P. T. A. axe, the school banquet axe, and so on ad infinitum. Anybody was considered capable of directing a play and any kind of play was considered worthy of production. A play was judged not by any literary value but by how many guffaws per minute the audience would give. Cheap picture shows helped to foster such a poor attitude toward drama. Many teachers and administrators do not care to go through the laborious process of building up a feeling for good

drama. A far-sighted teacher will see that it will pay a thousand-fold in the results in the lives of her pupils and their parents.

An added reason for giving only good drama is that many hours are spent in memorizing lines. These lines should be worthy of the time spent on them so that the children will have something worth retaining as a result of the great amount of time which they have spent.

If a dramatic arts department is properly organized and does not want too much to begin with, it should be self-supporting, at least after the first year. It cannot be self-supporting if the money from the play proceeds is used for school purposes other than dramatics. If the production of plays is to be educational, the costumes and accessories will be made, not rented, the scenery and properties built when possible, not bought, the plays actually studied, not put on hit or miss without plan or organization. This is really more difficult for the director but if her intentions are the growth of her pupils she will be more than willing to follow the plan of letting the children do all in their power and not trying to do everything herself. Giving a play is an expensive project and the children and the community should be made to realize this. Many cannot understand where the money "goes." It is the old idea that a play must be given to "raise" money for something. The director will need to educate her pupils and the community so that they may realize that play production is worthy in itself; that proceeds from plays go to produce other plays or add to dramatic equipment. If it is at all possible it is a good thing to have at least one free play production given in a community. Christmas is a good time to do this and there are many suitable and beautiful plays to use for that season.

The following course in dramatic arts is a tentative one only. It needs to be tried in many schools with different situations and varied equipment. The course is first outlined as it would be given when there is a department separate from English. This is the case in so few of our schools that it seemed wise also to present a plan whereby dramatics could be included as a definite part of the English work, with an explanation of how it was developed in at least one school. Suggestions are also made for extra-curricular dramatics.

Dramatics I. (Course of One Year of Two Semesters)

It is assumed here that the teacher is dealing with children of little or no experience, most of whom are in high school for the first time.

The aims of the course should be: (1) to develop an unself-consciousness in the child; (2) to begin necessary remedial work in posture and voice-training; (3) to acquaint him with plays of value; (4) to let the children get a general understanding of the stage and stage equipment. The following activities are suggested with these aims in mind.

I. To develop an unself-consciousness in the child.

Free Dramatization. The dramatizing of familiar stories and poems, letting the children work out their own dialogue, situations, etc. The conversation will be more or less spontaneous. It is the old game of "play-like." The dramatizations may be given before audiences later. Following dramatizations there should always be a discussion in which good and weak points are mentioned and suggestions for improvement

made. It is unwise to let the same child dominate or be chairman of a group too many times. It is better to give a child with less initiative a chance to lead a dramatization. He is the one who needs it.

Life Study. Children love to do life studies. The simplest ones are best to start with—the impersonation of an old woman carrying a basket of eggs, when the walk is icy; a nervous person crossing a footlog; a boy or girl listening to a radio, etc. Later, episodes which call for two or more persons may be given in pantomime. These may be rehearsed in private and given before the class or they may be given extempore from the teacher's suggestion for episodes or "life situations" as they are called. The children must understand that *no sound* is made during a life study, that all must be conveyed by action.

Later true pantomimes may be given by the children—that is, they may give productions that have been written by professional writers of pantomimes.

II. To begin remedial work and to train in diction, voice and posture.

It is assumed that most children will need remedial work in one or more of the above.

1. Rhythm work and physical exercises are necessities in dramatic courses in order to get rid of awkwardness, and gain control over the body. In larger schools courses in physical education will likely take care of this and the two departments can coöperate on this important phase. Where physical education is not given the dramatic arts teacher will find it best to teach as much of the following as possible:
   (1) Correct breathing. Use of abdominal muscles.
   (2) Correct standing and sitting positions (attention to shoulder, back, spine and feet).
   (3) Rhythm work.
      A. Free rhythm work. Interpreting various pieces of music by rhythms. For example: a fairly slow rhythm in ¾-time may be played and the children asked to interpret it as they care to. One child may sway with arms out, another may rock a baby, another do a waltz step, another bend his body in time to the music, another gesture with his hands.
      B. Gestures to music to aid in body coördination and cultivate gracefulness of gesture.
      C. Simple folk dances. These will help cultivate the memory in regard to rhythm and teach working rhythmically in groups.
2. Remedial work in voice and diction will be done incidentally all during the year. However, it is best at the beginning to stress and start work on these important factors. Trouble with diction and voice are caused by three things: faulty ear, physical defects and lack of training. The child will have to be given ear-training for the first; in most cases only a surgeon can remedy the second; but the teacher must give the proper training. The teacher and children should collect words that are especially neglected in pronunciation and enunciation and try to use them correctly. They

will vary in different localities but the chances are that there will be many "instids" for instead, "jists" or "jests" for justs, "lak" for like, "fur" for "for;" that final "g's" will be dropped consistently and that all but the first syllable of dozens of words will be swallowed by the child. He must be taught what his lips are for and taught to exaggerate all lip movements in the beginning. Tell him he should open his mouth so that three fingers will go in. Make him listen to you while you half enunciate a good story so he can see how annoying it is to a listener, when a reader swallows his words. Make him cultivate a good ear for his own enunciation and that of other people. Try to make him see how much more beautiful cultivated speech is than careless, unintelligible speech. Help him to improve his voice by showing him how to use it. Set an example by having and using a cultivated and pleasant voice. Teach him to differentiate between a harsh voice and a pleasing one. These things can be done only by consistent drill in reading and by keeping these objectives constantly before the student. The reading of both poetry and prose may be given for practice and individual work in interpretive reading used to attain these ends.

III. To acquaint him with plays of value.

The first-year student will have to be taught how to read plays silently as the technique is quite different from that of reading other literature. To begin with the teacher should read the class a play or two, telling them to imagine the action as going on a stage which they are facing. She will explain about stage directions being italicized, etc. The children may then read plays aloud, each child taking a part. The group remains seated. A leader may outline a thread of action. This is known as the matinee lyrique and is extensively employed in many schools. After this the child should be prepared to read many plays silently. Oral reports may be made to the class and he can jot down brief reviews of the plays in his notebook. He should be taught to find something besides a plot in a play. He should look for character portrayal, unusual situations, beautiful lines, unusual stage settings and costumes. He should learn to evaluate plays as regards literary value and the practicability and suitability for production by his group. This is as good a time as any to teach the ways a writer portrays character, viz., speech of character, action of character, speech of others about character, reaction of others to character and (in the case of writers like Milne, Barrie and Shaw) the author's opinion of a character given in stage directions. This knowledge of how character is portrayed will help the child in the understanding of plays that he reads and in the portrayal of parts in productions.

If it is possible, the production of one-act plays should be attempted during the year. This will help acquaint the child with plays of value and round out his first year of dramatic work with a public performance. Here a general word might be said about public performances:

Schools are for the purpose of developing children—not producing actors. In casting plays, type-casting should be avoided. A child should be given a part that will develop in him qualities that need developing.

For instance, in one school a girl who was an affected, boisterous child and had initiative to the point of obnoxiousness was given parts that required poise, quiet action and the ability to keep herself in the background.

In the first year it is recommended that plays where a love interest is prominent be avoided unless the play is of the fantastic type such as *The Knave of Hearts*. Many adolescent children, especially boys, get a distaste for dramatics because they fear they will be asked to act in love scenes such as they see in picture shows. When love scenes are necessary they should be dealt with in a very matter of fact way. In fact, in all play productions the children should be made to feel that they are not themselves but the characters they are portraying. Some teachers use the name of the character rather than the child in addressing students at a rehearsal and find that this aids in helping to keep the child in character. Rehearsing love scenes for the first few times privately saves some children from embarrassment.

IV. To help the child to get a general understanding of the stage and stage equipment.

Early in the year the child should be taught the names of various parts of the stage. He should be taught what makes a stage a good one, and why. Most of this knowledge will be of practical use when he takes part in a production.

V. An optional course in making marionettes and giving marionette plays will be found profitable and interesting during the first or second years. The Tony Sarg Marionette Book will be found helpful.

The making of the puppets, the stage, and finally acting simple plays will be a source of never-ending delight, and will help develop most of the aims of the course in Dramatics I.

Dramatics II. (Second Year—Two Semesters)

The course in Dramatics II will be a continuation and amplification of the course in Dramatics I. The same type of work should be given, making it more difficult and of greater scope. During this year nine to twelve one-act plays should be produced by the class, thus stressing formal production to a much greater extent than it was stressed the previous year. The aims should be the same, striving toward greater development for each individual child. Rhythm work can be given in more complicated forms, pantomimes may be written and produced by the children with music whenever possible. Plays of greater difficulty may be read and during production a beginning of the study of stage design, which is to be taken up definitely in Dramatics III, may be made. The work in diction must continue and be a very prominent part of the course as it is weakest and needs most attention.

An additional aim in this course is the development of the imagination through creative writing. Plays are not written this year but as an introduction to play writing monologs and dialogs may be written. Life studies may also be written, and they may be played with music if possible.

Dramatics III. (Course for Junior Year—Two Semesters)

In this course the first month or two may be used to review and amplify the rhythm, pantomime, diction and voice work of the previous courses. The main course will however be as follows:

1. To acquaint the child with folk drama of all countries and especially that of his own state.

2. To develop to a greater extent his ability in creative writing.

3. To teach him the principles of stage design, lighting, costuming and the practical application of these principles.

(1) To acquaint the child with folk drama of all countries and especially that of his own state. The course for this year may well be centered about folk drama. The Irish, Welch, English, Chinese and American folk drama will furnish ample material for a course. The class should study how folk drama came to be with discussions of theaters that have sprung up as a result. The greatest emphasis should be placed on the work of the Carolina Playmakers. Each child should know the history, aims and activities of the group and as much as possible about the prominent members of the group such as Professor Frederick Koch and Paul Green. The greatest interest may be aroused and dramatics will become more real to them. Many plays should be read both in class and for parallel reading, and three to six folk plays should be produced during the year.

(2) To develop to a greater extent his ability in creative writing. Development in creative writing—while it may be best to defer the writing of one-act plays in many cases until the fourth year, dialogue and monologues should be taught carefully here and the more advanced may try their hands at play writing. The children should be encouraged to write about subjects with which they are familiar, or else frankly write fantasies. The idea of folk drama can here be emphasized a great deal. The child should be taught to be critical of his work, not too easily pleased. Perhaps the best and most practical work in play-writing can be built around the book, *Writing the One-Act Play*, by Hillebrand. It is simply written and a trained teacher can use it very successfully. The art of giving and taking constructive criticism should be learned at this time.

(3) To teach him the principles of stage design, lighting, costuming and the practical application of these principles. The dramatic arts teacher is very fortunate if she can use the art, science, home economics and manual training department for coöperation with her on work in stage design, costuming and lighting. While each child should have some knowledge of each it will be more practicable to let each child choose one of the three to place most of his attention on. As preliminary work the class should study color as related to costume, scenery and lighting. They should read as widely as possible about the different types of design for stages and have a clear idea of the general principles underlying the technical side of producing. After the class has divided itself by choice, one group may especially concentrate on lighting, another on stage design and another on costuming.

a. *Lighting*—Electricity is not a plaything and the building of lighting equipment is not recommended unless it can be done under the super-

vision of a skilled electrician. Rather the children should learn what constitutes good lighting and how to handle to advantage what lighting equipment is available.

b. *Stage Design*—Scenery, including flats, plastic pieces and drapes may be made by children if they are taught how, and are properly supervised. A manual training room or workshop of some type is a necessity, although tools used need not be many or expensive. All scenery made should first be made in a stage model to avoid waste of time and materials.

c. *Costuming*—Costumes should be designed and materials carefully measured before beginning work. The children should learn how to use patterns, the historical and theatrical significance of costumes, the use of color in costuming, etc. Each child should get practical work in making costumes for a definite play.

For all of this work, a project of great interest and helpfulness is the keeping of a scrap-book which contains articles and pictures applying to the above.

Dramatics IV. (Senior Year—Two Semesters)

Aims:

1. To give the child a view of drama from its beginnings to and including the modern Little Theatre movement.
2. The study of special problems such as the making of masks, and learning the theories and application of make-up.
3. The study of plays from various periods.
4. The production of a long play or difficult short plays. In these an attempt should be made to put into practice what has been learned in all previous courses.
5. The writing and producing of original one-act plays.
6. Development of student ability in play-direction.

1-2-3. The story of drama is a fascinating one and will interest any child who cares enough about dramatic arts to study it four years. Obviously an exhaustive course such as is given in college would not be given, but masterpieces from various periods can be studied and the history of drama inter-woven with the study. The social aspects of the theatre may be brought out, and the historical episodes that have caused its decline or rise to magnificence. The subject of masks, their history and use can be brought in here and since children like to make things mask-making is an excellent project. Mask-making in the abstract is not as thrilling as making masks for a specific play. If the class in Dramatics IV cannot use masks they might construct them for some other class. Make-up may also be studied here. The children will have learned a great deal about make-up incidental to previous courses. Here make-up may be taught quite thoroughly and in connection with plays studied.

4. The production of a difficult play. Most dramatic authorities agree that in the majority of cases adolescent children cannot sustain emotion through a long play. For that reason in few cases should long plays be attempted until the fourth year of study. Even then they are not necessary and in many cases are not recommended, but instead the use of quite difficult one-act plays is suggested. In any case the production chosen

during this year should be the crowning achievement for four years of play study and production.

5. During the last year creative writing should be stressed as never before. The class should become a play shop where plays are written, acted, revised and re-written. The student should be taught to direct plays. In no other way will he quite realize the actual problems of a director. The class may work in groups with student directors, or directors in the class may be chosen to take charge of plays given by dramatic clubs or children in Dramatics I, II, or III. The original plays may be given under student direction also.

Adapting a Course in Dramatics to a Regular English Curriculum

The above course is suggested for those schools that are fortunate enough to have a full-time dramatic arts teacher and is to be open to any student who wishes the development obtained by the study whether he shows ability or not. The problem in many schools, especially consolidated schools where night rehearsing is almost out of the question, is how to use dramatics as a part of an English course. The following method has been tried in a typical consolidated school for three years and has been successful. Standardized tests show that the students have not neglected the minimum essentials and have gained in general ability after dramatic study.

Objectives for English work are set for the year. Each class tries to reach these objectives soon enough that there will be time left to take a month or six weeks off from routine work for the study of drama. Obviously a year's study in dramatic arts cannot be compressed into so short a time but many things can be accomplished. Work in diction and voice can already have been started in connection with all English work. Free dramatization can be used in connection with book reports, simple life studies can be done at odd moments during the year. The child should already have learned the easiest method of memorizing. All those are motivated by the idea that they can be used in plays. When the actual work on plays begins the child will be taught simple stage terms that he will need. He will execute as much of the stage scenery, costumes and properties as can possibly be done. Most of this will have to be planned by the director as there cannot be time for a detailed study of the technical side of production. The children can do much study on various topics connected with the plays, giving oral reports. A scrapbook can be made containing pictures and articles that pertain to the plays.

Specific examples will illustrate. One program of plays chosen was *Glory of the Morning, Spreading the News* and *Neighbors.* Study and reports were made on Indian costumes for men, women, boys and medicine men, a French trapper's costume; the construction of wigwams and calumets; Irish costumes for men and women; the construction of flats for an interior for a modern play. Another program consisting of *Told in a Chinese Garden, Four Friends and the Robbers, Diabolical Circle* called for study and construction of the following: Chinese costumes for men and women of lower and upper classes; a wedding chair for a Chinese girl; four animal costumes and masks; Puritan furnishings and costumes of about 1700; construction of a grandfather clock. Material for the

scrap-book contributed by the class consisted of pictures of Chinese and Puritan costumes cut from magazines; an article on how to construct an artificial fire in the Puritan fireplace, articles on stage models and scene building; pictures of faces for make-up study. All other material used for the construction of properties, costumes, etc., was obtained from a city library and from the school reference books, including the dictionary, which contained an excellent illustration of a wedding chair.

A program of three one-act plays is chosen so that each child may have a part. In large classes, plays with large casts may be used or two plays with medium casts and one with quite a large cast may be chosen. A tragedy, a comedy and a fantasy make a well-balanced program which is likely to please actors and audience. The rehearsing is done during class time. While the cast for one play rehearses, others of the class work on costuming, scenery or properties. Contract work in English is also given so that no one has any chance to remain idle. Those teachers who have not used contract work may find out about its principles and usage in copies of the *English Journal* for the past three years and from an article in *The Carolina Teacher* for April, 1928.

While the teacher rehearses at the stage the remainder of the class works with or without a class chairman, depending on the needs of the group. A student acts as prompter for each play during rehearsals, thus leaving the teacher free to direct.

The above plan for play production causes school performances to lose somewhat in artistry, as all children are used whether or not they have ability. The method is also more difficult for the teacher and some will ask if it is worth while. In answering the question the teacher will ask herself what she expects to accomplish with her students by going through the difficult process of giving plays with large groups of untrained children of varying abilities. Besides the usual aims for a dramatic course which have already been discussed at length, she will likely decide that the work will be worth while from the standpoint of individual development and especially in the development of the group to work independently of the teacher, since the plan suggested demands that the teacher leave groups to work without her. At the beginning of the year the matter of self-discipline is explained and is set up as one of the educational objectives to be attained. In some cases a class will not learn self-direction and must forfeit their right to produce plays until they can learn to work independently.

At least one teacher believes that it is worth while from the standpoint of individual development. She has seen shy children develop poise, voices that carried well and a pleasing stage presence; children with feelings of inferiority gain self-respect from having done a part well and having pleased an audience; cock-sure children convinced that they were part of a group, not the entire show; children influenced by the beauty of well-written lines; over serious youngsters helped by playing in good comedy; irresponsible boys and girls developed by being given responsibility which they must either fulfill or be the cause of the failure of the performance; members of a group disciplining other members because of such failures; large groups of children taught the true meaning of teamwork. In other words, at least one teacher believes that dramatics may be an educational force, not a mere excrescence on the school curriculum.

In a school where one class in dramatic arts is allowed, the course is usually chosen as an elective by children of average or above average ability. The essentials of the four courses are compressed as well as possible into one year. These essentials might be considered; diction, rhythm work, play-production, creative writing and possibly directing. The course is arranged to suit the ability and age of the particular group electing it.

In schools where it seems impossible to include dramatic work in any form in the regular class work, some work may be done through a dramatic club. Programs may consist of work in diction, life study, rhythm work, dramatic current events, and study of plays, dramatists, and great actors. An interest can be aroused in the folk drama of the state and the group encouraged to join the Carolina Dramatic Association. The association is connected with the bureau of community drama in the extension department at the state university. The services of the bureau are invaluable and no dramatic director should fail to avail herself of the help which she may receive there. She should address inquiries to Miss Nettina L. Strobach, State Representative, Bureau of Community Drama, Chapel Hill, N. C.

Bibliography

SUGGESTED PLAYS FOR PRODUCTION

DRAMATICS I

Six who Pass While the Lentils Boil—Walker.
The Knave of Hearts—Saunders.
The Pig Prince—Garnett.
Sir David Wears a Crown—Walker.
Never-the-less—Walker.
The Clock Struck One—Jennings.
The Dyspeptic Ogre—Wilde.

DRAMATICS II

Maker of Dreams—Downs.
Two Crooks and a Lady.
Allison's Lad—Dix.
Where But in America—Wolfe.
The Diabolical Circle—Bomstead.
The Trimplet—Walker.
Glory of the Morning—Leonard.
In Hospital—Dickinson.
The Very Naked Boy—Walker.
Neighbors—Gale.
Mrs. Pat and the Law—Aldis.
The Mouse Trap—Howells.
Three Pills in a Bottle.
The Beau of Bath—Mackay.
Thursday Evening—Morley.
The Turtle Dove—Oliver.
The Point of View—Phillpotts.
The Ghost Story—Tarkington.

DRAMATICS III

Lonesome-like—Brighouse.
Land of Heart's Desire—Yeats.
Riders to the Sea—Synge.
Spreading the News—Gregory.
Welsh Honeymoon—Marks.
The Deacon's Hat—Marks.
The Merry, Merry Cuckoo—Marks.
Medicine Show—Walker.
The Florist Shop.
Trista.
Gaius and Gaius Junior.
In Dixon's Kitchen—Stout.
Pink and Patches—Bland.
Cathleen in Hoolihan.
A Pot o' Broth.

DRAMATICS IV

The Stepmother—Bennett.
The Golden Doom—Dunsany.
Wurzel-Flummery—Milne.
The Twilight Saint—Young.
The Little Man—Galsworthy.

The Glittering Gate—Galsworthy.
The Gaol Gate—Gregory.
The Traveling Man—Gregory.
The Twelve-Pound Look—Barrie.
Will O' the Wisp—Halman.
The Locked Chest—Masefield.
Ile—O'Neill.
The Lady of the Weeping Willow—Walker.
Nelliejumbo—Walker.
The Hour Glass—Yeats.
Milestones—Bennett and Knoblach.
The Piper—Peabody.
Rip Van Winkle.
Jephthah's Daughter—Levinger.
The Rock—Hamlin.
Quality Street—Barrie.
The Dryad—Flexner.
The Servant in the House—Kennedy.
A Kiss for Cinderella—Barrie.
The Bishop's Candlesticks.
Iphigenia in Tauris—Gilbert. Muray translation.
You Never Can Tell—Shaw.
Arms and the Man—Shaw.
Androcles and the Lion—Shaw.
The Romancers—Rostand.
The Rivals—Sheridan.
She Stoops to Conquer—Goldsmith.

The above lists are not intended to be exhaustive, but merely suggestions for plays that might be suitable for groups usually found in the grades indicated. The teacher will have to use her own judgment in selecting plays that are not too difficult.

COLLECTIONS OF ONE-ACT PLAYS SUITABLE FOR READING

Carolina Folk Plays, Vols. 1, 2, 3—Koch.
Lonesome Road—Paul Green.
Seven Short Plays—Gregory.
Wisconsin Plays, Vols. 1, 2—Dickinson.
Representative One-Act Plays by British Authors.
One-Act Plays by Modern Authors—Cohen.
Five Plays—Dunsany.
Plays of Gods and Men—Dunsany.
Three to Make Ready—Garnett.
Plays for Classroom Interpretation—Knickerbocker.
More Plays for Classroom Interpretation—Knickerbocker.
Plays Old and New—Finney.
One-Act Plays—Goldsmith.
Atlantic Book of Plays—Leonard.
Atlantic Book of Junior Plays—Leonard.
The Little Play Book—Lord.
Yankee Fantasies—Mackaye.
Short Plays, Vols. 1, 2, 3—McMillan.
Representative One-Act Plays by American Authors.
Ten Minutes by the Clock—Riley.
Treasury of Plays for Women—Shay.
Twenty Contemporary One-Act Plays—Shay.
Fifty Contemporary One-Act Plays—Shay and Loving.
One-Act Plays for Stage and Study, Vols. 1, 2, 3, 4, 5—Clark.
Short Plays by Representative Authors.
Portmanteau Plays—Walker.
More Portmanteau Plays—Walker.
Portmanteau Adaptations—Walker.

LONGER PLAYS

Modern American Plays—Baker.
Chief Contemporary Dramatists, Vols. 1, and 2—Dickinson.
Plays Fifth Series—Galsworthy.
Plays—Milne.
Plays—Barrie.
Representative American Plays—Quinn.
Dramatic Masterpieces.
Moscow Theatre Plays—Sayler.

OTHER HELPFUL BOOKS

Writing the One-Act Play—Hillebrand.
My Maiden Effort. (A compilation of stories about the first attempts of now famous writers, in writing and marketing their writing.)
Dramatic Technique—Baker Art of Playwriting—Henniquin.
How to Produce Amateur Plays—Clark.
Playmaking—Archer.
Studies in Stagecraft—Hamilton.
Dramatics for School and Community—Wise. (Contains an especially complete set of bibliographies on every aspect of drama, including the educational phases, with the authors and publishers. A valuable addition to the teacher's library.)
The Art of Make-up—Chalmers.
How to See a Play—Burton.
Experiments in Writing.
The Scenewright—Smith.
Producing in Little Theatres—Stratton.
Book of Play Production—Smith. (Invaluable for the teacher who expects to do any building of scenery.)
Acting and Play Production—Andrews and Weirick.
Dramatic Technique—Bosworth.
Stage Costuming—Young.
Clothes On and Off the Stage—Chalmers.
Costuming a Play—Grimball and Wells.
Costumes and Scenery for Amateurs—Mackaye.
Hebe: A Book of Costumes—Dabney and Wise.
Scenery and Lighting—Selden. (Bulletin from Carolina Dramatic Association at Chapel Hill, N. C. Invaluable.)
Foundations of Expression—Curry.
Lessons in Vocal Expression—Curry.